BDJ Team
MARCH 2019

ORAL CARE AND THE ELDERLY

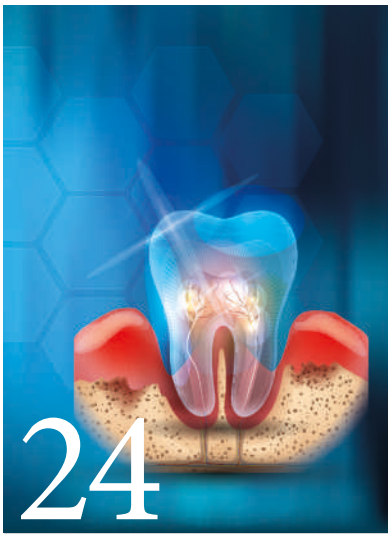
BDA
British Dental Association

March 2019

Highlights

Regulars

In this issue



Ed's letter

Career progression is very much a theme for the March issue of *BDJ Team*. We have a fascinating article by Rachael England about her role last year as a research dental hygienist as well as an informative piece by Sarah MacDonald on how to become an orthodontic therapist (OT). Sally Dye, meanwhile, Chair of the Orthodontic National Group for orthodontic nurses and therapists, explains what her organisation can do to help team members in the orthodontic field, the biggest of the dental specialist groups.

Still on the theme of careers, Mike Wheeler, a dental hygienist now working with Health Education England, explains how to gain an apprenticeship in the dental field. There are great opportunities for people wanting to work in the dental field but needing financial support to gain skills.

As you will read in my opinion piece about the NHS Long Term Plan, dental care professionals are likely to play an even greater role in the future in the delivery of preventive care, which is very much a priority for this government.

The Mouthcare Matters scheme is the epitome of prevention. What better way to combat the ailments that can ensue from a neglected mouth than by teaching doctors and nurses on medical wards and in residential homes to be alive to mouthcare issues. Sarah Haslam is a dental nurse who is working in a different but effective way. I am sure we are going to see more mouthcare nurses in the future! As Rachael England said: 'I think we should fully utilise the skills of the whole dental team - including the lab! - improve access to care in lower socio-economic areas, incentivise preventative treatment and reward health.'

Nothing illustrates the importance of staying on top of good hygiene more than the topic of periodontal disease. We now know that once you have it, you have it for life. As a result of a wealth of new evidence that has emerged to improve our understanding of the disease, the classification system has been updated. I am delighted to bring you coverage of the revised approach to classification and its implementation.

The March issue brings the fourth in our series on the management of medical emergencies in the dental practice. This time oxygen is the topic and Emma Hammett's article presents another opportunity to build your CPD.

Two of the articles in the March issue are about dental teams being 'out on the road.' I predict that in the future, this will not be so unusual and a lot more oral care and advice will be happening away from dental practices. You read it here first!

Until the next time!

Caroline Holland, *Editor*
caroline.holland@nature.com

Mouthcare Matters p9

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10.1038/s41407-019-0010-0

THE TEAM

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British Dental Journal
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SCAMMERS **EXPLOITING** ORAL HEALTH FOUNDATION HELPLINE

The dental helpline run by the Oral Health Foundation is being exploited by scammers who have created premium line numbers purporting to be run by the foundation but which take money from unsuspecting callers.

The Foundation is alerting the public and the profession to the scam and highlighting that the only number for the helpline is a local-rate telephone number: 01788 539 780. The service is run by dentally qualified personnel, mostly dental nurses, and is free.

Dr Nigel Carter OBE, chief executive of the foundation, advised anybody wanting to contact the helpline to check the authenticity of the telephone number first. The helpline can be reached by email: helpline@dentalhealth.org or via the website: www.dentalhealth.org/dentalhelpline.

SUGAR CUBES GO AWAY, DON'T COME BACK ANOTHER DAY!

Primary school children will be taught how to count sugar cubes as part of the government's anti-obesity push. English and maths lessons will include anti-sugar messages in an attempt to improve children's diets. Children will use their times tables to work out how much sugar is in a bowl of cereal or a can of fizzy drink and will then see if it is more than the recommended daily allowance (RDA) in new worksheets provided by Public Health England. They will also be asked to find 'swaps' for healthier food and drink items.

In English classes, children will be asked to draw a comic saying that people should swap out sugar-laden foods for lighter alternatives. Other activities include designing a 'sugar swap' poster or writing a letter persuading people to consume less sugar. As well as the worksheets PHE is offering slideshows for teachers to use in class with one of the presentations for English lessons containing an anti-sugar song: 'Sugar cubes, go away, don't come back another day, you're not good for our teeth, sugar, go away'. In the background information provided for teachers, PHE warn that one child has a rotten tooth removed every ten minutes.

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Gum disease may cause premature labour

Pregnant women with plaque are more likely to give birth before 37 weeks, research suggests. A study of dozens of new mothers found 45 per cent of those whose waters broke early had swollen, sore or infected gums. In comparison, only 29 per cent of the women who didn't give birth prematurely had signs of gum disease. Bacteria in plaque are thought to travel to the placenta via the bloodstream, causing it to became inflamed. This may disrupt the amniotic sac that surrounds the foetus, leading it to rupture too soon, scientists believe. The research was carried out by University Hospital Hradec Králové, Czech Republic, and led by Dr Vladimíra Radochová, from the department of dentistry and published in the Journal of Clinical Periodontology. Dr Nigel Carter, chief executive of the Oral Health Foundation, believes the study highlights the importance of looking after our teeth during every stage of our lives.

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FROM PG TO AD: **RESEARCH FINDS A LINK BETWEEN GUM DISEASE AND ALZHEIMER'S**

A common gum disease bug, Porphyromonas gingivalis (Pg) plays a 'central role' in the development of Alzheimer's Disease (AD), according to scientists who say they have finally found 'solid evidence' linking the bacteria to dementia (http://advances.sciencemag.org/content/5/1/eaau3333).

There have been previous suggestions that Pg may play a role in Alzheimer's, but the latest study by a US-led international team of scientists appears to put the link beyond question.

Researchers made the discovery after analysing brain tissue, spinal fluid, and saliva from dead and living patients with diagnosed and suspected Alzheimer's. They found evidence of toxic enzymes, known as gingipains,that are released by P. gingivalis, as well as DNA from the bacterium.

The scientists tested drugs that blocked gingipains and found they were able halt the neurodegeneration. The team has now developed a new drug, COR388, that better penetrates the central nervous system and could form the basis of a human Alzheimer's treatment.

A large-scale clinical trial that will involve giving the drug to patients with mild to moderate Alzheimer's is planned for later this year. Professor Damien Walmsley, scientific adviser to the BDA, said: 'This study offers a welcome reminder that oral health can't remain an optional extra in our health service. Everyone's life can be improved by regular appointments and good oral hygiene.'

NEW STRATEGY *TO COUNTER* ANTIBIOTIC RESISTANCE

A five year plan to tackle the problem of drug-resistant superbugs was unveiled by Health Secretary Matt Hancock at the World Economic Forum at Davos, Switzerland. The new UK strategy, backed by the prime minister, will see the government adopt targets to reduce infection and antibiotic use among humans and in livestock and pets.

The UK will cut drug-resistant infections by 10% and reduce human antibiotic use by 15% over the next five years as part of a new strategy to tackle so-called superbugs.

Drug companies will be paid millions for developing antibiotics to fight a superbug threat described as more dangerous than terrorism or climate change.

No new class of antibiotic has been discovered since 1980, with the pharmaceutical industry reluctant to carry out costly research into the area. Companies cannot expect blockbuster sales from new antibiotics because they would be held in reserve for cases in which existing medicines fail. To separate profits from sales, the NHS will pay companies up front if they produce an effective new drug, a commitment that could ultimately cost millions of pounds a year.

Widening gap between rich and poor Scots visiting their dentist, figures suggest

People from Scotland's most deprived areas are less likely to have visited their NHS dentist in the past two years than their more affluent peers, new figures indicate. The gap for both adults and children has trebled in the past decade and is now is the largest on record, according to NHS Scotland Information Service Division data.

For adults, 62.2% of those in the poorest areas had seen their dentist in the two year period up until September 2018 period, compared to 72.7% of those in the most well-off neighbourhoods. Gaps of nine and 10 percentage points for children and adults respectively have risen from three percentage points in 2008. This is despite adults living in the most deprived areas being more likely to be registered with an NHS dentist than those in more affluent areas. The registration figures for children were similar across all areas, at more than 90%.

Dates for your diary

If you have an event you want featured in 2019, email the Editor: caroline.holland@nature.com

BSP 2019
The 2019 BSP Conference takes place in Brighton 24-26th April
Details here http://www.bsperio.org.uk/events/info/bsp-conference-2019.

The ADI Team Congress 2019
May 2-4, EICC, Edinburgh
The Future of Dental Implantology: Techniques-Technology–Teamwork.
An event for experienced dental professionals as well as those who have just started out with dental implants. The event will see a major trade exhibition hosting a wide selection of stands. For more information, please visit: *https://www.adi.org.uk/events/events.php.*

National Orthodontic Therapist Day
May 17, Mandec, Manchester
Speakers: David Waring, Steve Chadwick, Simon Littlewood, Amy Gallacher, Richard Needham, Badri Thiruvenkatachari, Ovais Malik.
Limited spaces, book early: www.bos.org.uk.

University of Dundee

FOUR TIPS FOR BETTER DENTAL HEALTH

An article in the Independent provides important oral health guidance for patients. It includes advice on brushing technique and tips for good oral health, including spitting not rinsing, using fluoride toothpaste and disclosing tablets, and having no more than four 'sugar hits' per day. The piece is authored by Nicola Innes, pictured, a professor of paediatric dentistry at the University of Dundee and Clement Seeballuck a clinical lecturer. (https://www.independent.co.uk/news/health/teeth-brushing-toothbrush-dental-health-hygiene-decay-toothpaste-a8719581.html)

ACADEMIC SAYS IMPROVING ORAL HEALTH CAN HELP REHABILITATE PRISONERS

Professor Ruth Freeman from the School of Dentistry at the University of Dundee has said a health coaching initiative developed in Tayside has led to a significant shift in the behaviour and wellbeing of prisoners at Perth Prison. The team from the university's Dental Health Services Research Unit (DHSRU) within the School of Dentistry, developed the People in Prison, Health Coaching for Scotland (PeP-SCOT) programme to provide health coaching training for inmates.

She said: 'The pain of toothache can influence a person's mood and we know that there is a link in the homeless population between having decayed and missing teeth and depression. There's no reason to think there might not be a similar link to those people in prison. Oral health can significantly impact on the quality of life of those in prison, from not being able to eat properly or having painful teeth, to more social aspects, with many feeling self-conscious or embarrassed about their appearance.'

The People in Prison, Health Coaching for Scotland (PeP-SCOT) programme trains people in prison to become peer health coaches. Participants receive qualificatons following 92 hours of training.

FAMILY DOCTORS SIGN UP TO POOREST AREAS AFTER £20,000 INCENTIVES

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Record numbers of GPs are working in some of England's most deprived communities after being given £20,000 'golden hellos' to tackle the under-doctoring of poorer areas. More than 500 trainee family doctors have begun working in places such as Hull, Blackpool and Cumbria since 2016 in a move NHS bosses hope will tackle health inequalities. The incentive helped persuade 265 doctors last year to start their career in areas that have struggled to recruit enough GPs. That is double the 133 of a year earlier and the 122 in 2016, the first year the payments were offered.

Soft drinks in Australia targeted with graphic images of tooth decay in new health campaign

A new public health campaign that mocks the glamour of soft drink advertisements is urging Australians to consider the impact of sugary drinks on their teeth. The Rethink Sugary Drink health campaign features young people drinking red cans of a drink that appears to contain cola, before flashing smiles that reveal rotten teeth.

The online-only campaign will be shared on social media by health and community organisations. The Australian Dental Association (ADA), Diabetes Australia and the Cancer Council are among eight groups using the campaign to call for:

- A levy on sugary drinks to increase prices by 20 per cent
- A government-supported social marketing campaign to highlight the health effects of sugary drinks
- Restrictions to reduce children's exposure to marketing of sugary drinks
- Restrictions on the sale of sugary drinks in schools, government institutions and at children's sport events
- State and local government policies to reduce the availability of sugary drinks in workplaces, healthcare facilities and other public places
- Promotion and easy access to fluoridated tap water

Another 11 health and community organisations have backed the awareness campaign.

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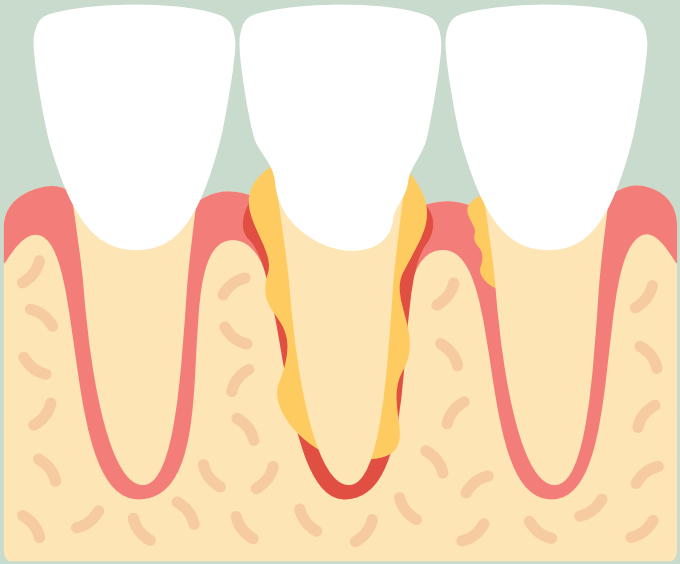
Clinical health at the **heart** of new perio classification

Dental hygienists and therapists have all responded positively to the new perio classification system – **Caroline Holland** shares the insights of organisations and individuals.



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The perio specialty enjoys unparalleled international collaboration. The recently released classification system is a perfect example. The result of a world workshop in 2017 organised by the European Federation of Periodontology (EFP) and the American Academy of Periodontology (AAP), it represents a major step forward.

Key aspects are that it defines clinical health for the first time and distinguishes between an intact and a reduced periodontium throughout. Moving forwards, periodontitis is classified into four stages based on severity and three levels based on susceptibility.

While a little daunted by the new system, dental hygienists and therapists have all responded positively and have expressed their appreciation of the work of Thomas Dietrich and team at Birmingham University Dental Hospital and the British Society of Peridontology who together have created implementation guidance for general practice.[1] A flowchart to support the new system is now available on the British Society of Periodontology (BSP) website.[2]

References

1. T. Dietrich, P. Ower, M. Tank, *et al.* Periodontal diagnosis in the context of the 2017 classification system of periodontal diseases and conditions – implementation in clinical practice. *Br Dent J.* 2019 **225:** 16-22.
2. British Society of Periodontology. Publications 2019. Online information available at: http://www.bsperio.org.uk/publications/downloads/111_153050_bsp-flowchart-implementing-the-2017-classification.pdf (accessed February 2019).

Mel Prebble

Dental hygienist at Abbey Road Dental and Neel Dentistry

In my opinion it's a progressive step as it joins the dots and allows us to consider all factors, health, disease, risk and so on. I am delighted we now recognise healthy periodontium and peri-implant diseases. The challenge is implementation, which will take us time, although I think this gives us an opportunity to review and refine and clearly define stages and grades of disease, and also potentially give our patients a better understanding of their disease or health status and subsequent care pathway.

With colleagues I have been reviewing the document, listening to the webinars and discussing the implementation strategy. This system is allowing us to review and consider our protocols.

Debbie McGovern

President of BADT

BADT welcomes the new periodontal classification and once clinicians are familiar with its use, it will represent a straightforward means of providing a named diagnosis for the periodontal disease the patient is presenting with. It will not change the way the disease is treated which is ultimately the most important thing.

As with all new systems, it will take some time to get used to, and BSP are to be congratulated on their down to earth approach in making the new system more user friendly and their generosity in sharing it with the whole profession. Their flow chart (http://www.bsperio.org.uk/publications/downloads/111_153050_bsp-flowchart-implementing-the-2017-classification.pdf) is a brilliant resource, and one which we will all rely on to help us while we get to grips with the new system. Thank you BSP!

Nichola Tong
A dental hygienist and lecturer

On first inspection, the new system may seem a little daunting with all the algorithms, charts, graphs and accompanying tables, but I found these elements to be what actually helped me make sense of it. As a hygienist with over 25 years' experience I have found that notating my periodontal diagnosis had been rather vague and subjective due to what now seems like a lack of detailed diagnostic written parameters. The new classification system of 2017 gets rid of a lot of the 'grey' and brings a new level of detail to help us arrive at:

- the appropriate gingivitis/periodontitis diagnosis
- the extent of involvement of each disease throughout the mouth
- the rate of progression.

It's a standardised stepwise tool that helped me write more specific contemporaneous clinical notes.

Dietrich *et al* (2019) acknowledge that clinical attachment loss (CAL) is not routinely measured in a clinical setting. This means that a lot of periodontal diagnoses may be falsely based on a BPE of 3, and conversely a BPE of 2, if used in isolation, may not give an accurate diagnosis of successfully treated historical periodontal disease.

By introducing a staging and grading system we can capture the extent of historical disease and help assess potential future tissue loss. Detailed guidance on interpreting percentage bone loss with available radiographs and/or actual CAL encourages us to record whether pockets are the result of a loss of tissue moving apically or upward tissue swelling (pseudo pocketing). By building on the traditional use of BOP and probing pocket depths we can recognise and manage a successfully treated stable periodontal patient, a patient in periodontal remission or someone with an unstable disease status.

In practice, I found it helpful to have a printed copy of the algorithms and charts to hand for reference. I also updated my clinical notes template to incorporate the distinction between diseases, historical percentage bone loss and/or CAL (staging), the extent and distribution of tissue loss and grading based on age. This also served as a prompt to remember to notate it!

We're not all going to get it right straight away, but by making an effort to show that we are trying, in the best interests of our patients, we should be protected medico-legally.

It will take time for the periodontal diagnosis culture to change but we should start familiarising and implementing. This will mean that our patients are screened more thoroughly, that mis-diagnosis or lack of diagnosis may be avoided and, therefore, litigation in this field may be reduced.

Julie Deverick
President of The British Society of Dental Hygiene and Therapy

We welcome the adapted guidelines from the British Society of Periodontology and their work to bring it to a wider audience with explanation and illustrated diagnostic pathways to aid in its implementation.

Diagnosis in a practice setting will still rely on the clinician screening the patient using the BPE, signposting the need to check radiographs for bone loss, measuring clinical attachment loss, bleeding on probing and pocket depths. The difference now will be the addition of the staging and grading of the patient with the third element being the patient risk factor profile.

How well this will be received in a clinical setting is yet to be seen. Some clinicians are already utilising it effectively but it will take time for a dentist, dental hygienist or dental therapist to feel proficient in its use; some have laminated the sheets as a quick guide to follow.

As with all treatments, if this is to be effective, time is required to follow the steps and this may not always be possible in some practices; once the patient has been identified as BPE 3 or 4, to be fair to the patient and the clinician, extra time is needed in order to effectively follow the classification system guidelines so that the treatment need can be established.

This system can work well in private and specialist practices but the current NHS contract is restrictive, especially for the dental hygienist and dental therapist, as their appointment times are constrained and the patient is required to be examined by the dentist for a new course of treatment. It also relies on all the clinicians in the practice following the guidelines, which presents further challenges.

These guidelines now allow the patient who has been diagnosed with periodontitis to be given very clear definitions for their condition and it can be explained that once they have that diagnosis, they will always be a periodontal patient – stable or unstable. A sentence that stands out is… *It is important to note that a higher probing depth of 5 mm or 6 mm in the absence of bleeding may not necessarily represent active disease, in particular soon after periodontal treatment…..* This gives the clear message that there may be no need to treat a pocket of this depth if it is not bleeding which is significant as many clinicians will do so at the moment. This is definitely a progressive step.

'THESE GUIDELINES NOW ALLOW THE PATIENT WHO HAS BEEN DIAGNOSED WITH PERIODONTITIS TO BE GIVEN VERY CLEAR DEFINITIONS FOR THEIR CONDITION'

10.1038/s41407-019-0013-x

The mouth care *lead* nurse

Sarah Haslam, the Mouth Care Matters lead for Dartford and Gravesham NHS Trust, describes her work and explains why more work needs to be done to bring recognition to the role.

Q. Tell me about the work you do

I am based at at Darent Valley Hospital in Kent where I am the Mouth Care Matters lead for my NHS Trust. Mouth Care Matters is a Health Education England programme designed to improve the oral health of hospitalised patients.

A large part of my role is providing mouthcare training to all nursing staff, foundation doctors and healthcare professionals. I provide one-to-one oral health advice and instruction to more vulnerable patients, such as those who may have learning disabilities, and to their carers.

Q. Tell me about your work educating general nurses about oral health issues

The aim of my role is to provide classroom and practical training in the delivery of good mouthcare to dependent patients. My clinical lead is Mili Doshi and I also work closely with the team in the local Community Dental Service. I am supported by a dietetic team, nutrition nurse and speech and language team. My daily role can be quite varied from giving presentations and bedside training with staff to oral health promotion.

A typical day for me starts with checking if staff have requested mouthcare advice for existing inpatients who can develop different mouth care issues. The most common issue is Xerostomia. Dry mouth can develop in patients who have good oral hygiene. It can be caused by multiple medications, radiotherapy, oxygen therapy, by being made nil by mouth (NBM) before a surgical procedure or because of mouth breathing. Having a dry mouth increases the patient's risk of developing oral candida commonly known as oral thrush and it can lead to soreness.

Adhering to the scope of practice is very important. I can give advice on how to deliver mouth care but do not diagnose or advise on prescribing. I am often asked by doctors for advice as they have no oral health training so I explain this to them and suggest they speak to their senior colleagues.

Next stop is the ward round when I will review the patients with the nursing staff and see if the advice I have given has helped or if there are new staff on the ward that require

training. Working at the bedside, I ensure I am wearing full protective cover, which includes a disposable apron and gloves.

When I am discussing mouthcare, I ideally like to have the responsible nursing staff present. This gives me the opportunity to demonstrate what mouth care I would like the nurse to support the patient with and make sure the nurse is happy and competent to follow up. Then I will document our discussion and the plan in the patient's medical notes.

I see patients on surgical and medical wards as well as our children's ward. During the day I may deliver ad hoc ward training which can include giving nursing staff a quick update about mouth care products, mouth care documentation or a mouth care demonstration with a consenting patient. Throughout the year I deliver training on study days. For example, I deliver a mouth care session to the health care assistants four times a year.

At the end of the day I will record how many patients I see and what the different reasons for referral are. I audit the mouthcare recordings on a regular basis.

As the mouth care dental nurse for my Trust I may be invited to a meeting to give an update about mouth care within the Trust.

Q. Can you give me any examples where people (patients) have been suffering with a dental problem - but this has been overlooked by medical teams?

When I first started and before I began training the foundation doctors, I noticed that they did not look in the mouth as part of their assessment. There is a big focus on eating but nobody would ask, has the patient stopped eating because of a dental issue? I teach the doctors that patients may present with a variety of mouth care issues and that it's important to look in the mouth with a light source and ask if they have pain in their mouth. Mouth care is the responsibility of us all and the doctors really do value oral health training.

Q. Currently, the GDC recognises the general title of dental nurse – should there be other titles for dental nurses? And why?

I am an Extended Duties Dental Nurse as I have my Oral Health Education qualification and I have undertaken my fluoride varnish competency course. As the person with the dental knowledge, the general nurses, health care assistants and foundation doctors see me as team member who can support and advise them.

> ***'MOUTH CARE IS THE RESPONSIBILITY OF US ALL AND THE DOCTORS REALLY DO VALUE ORAL HEALTH TRAINING.'***

Since working in hospital I have had the opportunity to work with Clinical Specialist Nurses (CNS) and they are general nurses who have gained experience or further qualifications in their specialised area such as dementia or tissue viability.

Another role that I see developing in the hospital is the nursing associate and physician's associate. These are roles that require further training and qualifications but after training, for example, the nurse associate can carry out tasks that were beyond their scope of practice role as a health care assistant.

I would love to have my role acknowledged within the GDC scope of practice for a dental nurse, just as the nursing associate role is being developed and recognised by the Nursing and Midwifery Council (NMC). Yes, I am a dental nurse but through my own training and education I have developed an in-depth knowledge of mouth care and oral health that I feel goes beyond my role as a general dental nurse in practice.

I am a dental nurse by background and training. I am proud of my role and how far I have come. I have undertaken:

- The Open University HE Cert in Health and Social Care
- An NVQ Level 3 in Oral Health
- The Oral Health Education certificate
- Dental Nurse Assessor
- Fluoride Varnish Competency Certificate.

With a robust training pathway and competencies there is a role for a mouth care specialist dental nurse. I worked at Guys and St Thomas NHS Trust a few years ago and they had a career pathway for dental nurses. One of the roles that dental nurses can apply for with appropriate training and education is a Clinical Dental Nurse Specialist.

Q. Would it be just a hospital role? Or could you see this working in practice too?

The mouth care lead dental nurse could support nurse led clinics and triage in practice and community settings. I know there are some settings that already run a nurse led clinic. In hospital it would be reviewing and advising patients, their families or carers. For either a hospital or practice a large part of the role would be teaching. Education is so important to raise awareness especially in how poor oral health can affect our general health and vice versa. There is a need for this type of training in care homes.

Q. What sort of difference would this make to career development for DNs?

I think it would make a great difference as it would enable dental nurses to use their specialised knowledge in mouth care to support their patients. Dental nurses are passionate and make great ambassadors for integrating oral health into general health.

Sarah Haslam is lead mouthcare dental nurse for Dartford and Gravesham NHS Trust. She has been a qualified dental nurse for 13 years and worked in general practice, community and hospital. She is a qualified Oral Health Educator and Dental Nurse Assessor. Her special interest in dental nursing is supporting adults and children with learning disabilities and mental health issues.

10.1038/s41407-019-0007-8

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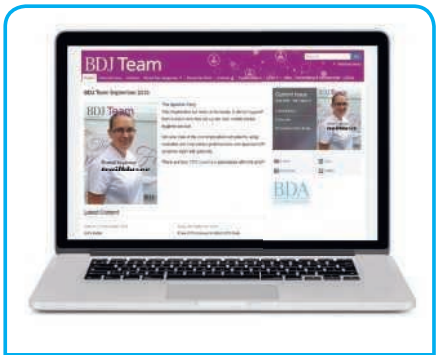		
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The future of NHS dentistry – **anyone's guess?**

Caroline Holland attempts to understand the vision for dentistry based on what's NOT in the NHS Long Term Plan!

January was a hectic month with the publication of the NHS Long Term plan,[1] a dental question in the House of Lords and the opening of a hybrid dental practice, namely a private practice trying to serve NHS patients!

The NHS Long Term Plan is revealing about the future of NHS dental provision, more for what it doesn't say than what it does. The plan has triggered varying responses among the dental profession and its patients, from a positive welcome in some quarters to bewildered and downright angry in others.

I can recommend a Public Health England blog[2] to convey its essence. In a nutshell, the emphasis of the NHS Long Term Plan is on prevention and transforming the NHS from a service which treats patients to a system which keeps us all well for longer. One of its qualities appears to be compassion. Look at some of the chapter headings and you will see what I mean:

- Stronger action on NHS inequalities
- Children with cancer
- Care leavers
- A strong start in life for children and young people.

This plan appears to be focusing its sights on those with high needs. Think back to some of the scandals of the last few years and I believe they influenced the direction of the document – child abuse in Rotherham, A&E departments overwhelmed by numbers, sick patients queuing on trolleys, wasted outpatient appointments valued at £8m, £50.5 million on general anaesthetics for decay-related dental extractions…..The plan may be short on detail but the majority of people who want the country to be fairer and kinder may find reassurance that the most vulnerable are a priority.

The plan recognises the importance of health and wellbeing – and this includes the dental needs – of people with learning disabilities and autism. It states that local areas should design and implement models of care that will '….provide holistic care across local authority and NHS services.' Oral health is included among the named services.

Children and young people are a major theme. The plan states that care provision - to include oral health - should be across local authority and NHS services. Both the British Society of Paediatric Dentistry and the British Association of Dental Therapists have welcomed this aspect.

There is residual concern among many commentators that the push towards improved partnership working with local authorities is happening at a time when councils are having their budgets slashed. Local authorities are being urged to deliver more and better oral health programmes at the same time as cutting spending.

The only direct reference to dentistry in the plan is through a mention of Starting Well, yet the wording is misleading. The plan states that 24,000 dentists are being supported by the Starting Well initiative to see children from a young age to form good oral habits. In fact, only 213 practices in 13 areas are involved with Starting Well, so probably less than 1000 dentists are being supported.

A House of Lords Q&A[3] – which took place within 8 days of the publication of the NHS Long Term plan - mentioned Starting Well and provided up-to-date figures for the initiative. Baroness Manzoor, who was answering the questions on behalf of the government, said most Starting Well practices have an oral health champion. And in Hull, dental practices have health visitors attached.

The brief exchange in the House of Lords seemed to deliver more information about dentistry than the 136 page NHS plan. So why was there so little in the document about dentistry? This begs questions! Ben Underwood, a GDP, an NHS Accelerator Fellow and a member of our reader panel identifies the questions he would like to ask:

1. The plan mentions that '*…digital technology will provide convenient ways for patients to access advice and care.*' Will this include access to dentists and oral health advice?
2. Will the NHS app allow patients to book dental appointments and share their medical records with their dentist?
3. The plan frequently mentions the

importance of self-care and people/patients managing their own health – does this include oral health?

4. To quote the plan, *'In ten years' time, we expect the existing model of care to look markedly different. The NHS will offer a 'digital first' option for most, allowing for longer and richer face-to-face consultations with clinicians where patients want or need it.'* Will this include dentistry, for example, with prevention advice given remotely, possibly to the patient in their own bathroom?
5. '*People will be helped to stay well, to recognise important symptoms early, and to manage their own health, guided by digital tools.*' Will this include recognising symptoms of dental disease and managing their own oral health with for example oral health apps that make it into the NHS Apps Library?
6. '*We will enable staff to capture all health and care information digitally at the point of care.*' Does this mean all dental practices will be supported to move away from paper notes?

The reference to the model of care being 'markedly different' in ten years gives us the best clue to the mindset of the authors of this document in my opinion. Dentistry is going to change dramatically, so dramatically that it is impossible to predict what it will look like in ten years time. As the creator of BrushDJ, Ben rightly has a vision for the use of digital technology. As Editor of *BDJ Team*, I find myself thinking about you, my readers.

Dental Care Professionals are likely to play a more significant role in the future. It is you who are tasked with giving oral health advice, it is you who provide preventive treatments, like topical fluoride applications. You, naturally, will be at the forefront of preventive dentistry, which we know from the Green Paper[4] published last year, is the way that Health Minister Matt Hancock wants to take Society.

Of course, the authors may not have thought of dentistry in general practice at all. The plan certainly gives that impression and this has naturally angered the British Dental Association. Which doesn't mean to say that there won't be an impact. As commentator and dental writer Michael Watson said in his blog: '.. any improvement in the NHS as a whole will benefit dentistry if they free up money currently spent on treatment and allow it to be spent on prevention of dental disease. Many of the initiatives mentioned, for example to reduce the number of people smoking and sugar consumption, will benefit dental health, even if this is not the primary reason they are being promoted.'

But if you think you are getting a sense of where this is all leading, the advent of a new style of dental practice, confuses the picture. The mydentist Access practice is being rolled out in areas where there is no access to NHS dentistry. It is described as an 'affordable' alternative to NHS dental care. I always think affordable is a highly subjective word! The CEO of mydentist says the group aims to work alongside the NHS and provide patients who have long waiting times with good dental care quickly. I will be surprised whether this new approach, backed by Matt Hancock, will work. The fact it's happening at all makes me wonder what discussions are taking place between dental corporates and the government? Little wonder it's impossible to predict the future of NHS dentistry!

Debbie McGovern, BADT President

Michael Watson, dentist blogger

Ben Underwood, NHS Accelerator Fellow

'ALL WE KNOW IS THAT WHILE THE FUTURE FOR DENTISTRY IS UNCERTAIN, DENTAL THERAPISTS, HYGIENISTS AND NURSES ARE LIKELY TO ENJOY A MORE SIGNIFICANT ROLE.'

All we know is that while the future for dentistry is generally uncertain, dental therapists, hygienists and nurses are likely to enjoy a more significant role.

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10.1038/s41407-019-0005-x

CORE CPD: ONE HOUR

The emergency administration of oxygen

Emma Hammett describes when and how to administer oxygen during an emergency in the dental practice.

Many dental practices hold oxygen for the treatment of acute medical emergencies. It is vital to ensure that this is given appropriately to optimise a casualty's best chance of survival. Oxygen should only be administered by staff who are trained and competent. Guidelines for oxygen administration are set by the British Thoracic Society.

In most emergency situations, oxygen is given to patients immediately, without a formal prescription. In all other circumstances, a prescription is essential. When oxygen is given without a prescription in an emergency, a subsequent written record must be made of exactly what oxygen therapy has been given to the casualty, in addition to recording, in writing, the rest of the emergency treatment.

Historically, oxygen has been an integral part of the emergency treatment of ill or injured patients. It has been widely believed that oxygen helps the casualty with their breathing. This is not the case - oxygen is a drug for the treatment of hypoxaemia, not breathlessness. In a conscious casualty, oxygen should be prescribed according to a target saturation range and those who administer oxygen therapy must monitor the patient closely and keep within the range (Figure 1).

Fig. 1 Checking oxygen saturation with a pulse oximeter

CPD questions

This article has four CPD questions attached to it which will earn you one hour of verifiable CPD. To access the free BDA CPD hub, go to **https://cpd.bda.org/login/index.php**

Giving oxygen to a conscious casualty in an emergency situation

Extreme care should be given when administering oxygen to a conscious patient and it should ideally only be given whilst closely monitoring their oxygen saturation with a pulse oximeter. If oxygen saturation levels are less than 94% then oxygen may be indicated. However, if the casualty has pre-existing chronic obstructive airways disease or is at risk of hypercapnic respiratory failure - the indicated pulse oximeter saturation level is considerably lower at 88 to 92%.

Giving oxygen to these patients with higher oxygen saturation could prove fatal.

If a patient's oxygen saturations demonstrate that they are hypoxic and they are conscious, oxygen is indicated for the following conditions:

- Myocardial infarction and acute coronary conditions
- Stroke
- Cardiac rhythm disturbance
- Implantable cardioverter defibrillator firing
- Glycaemic emergencies.

Because oxygenation is reduced in the supine position, fully conscious hypoxaemic patients should ideally be allowed to maintain the most upright posture possible, or the most comfortable posture for the patient.

Oxygen saturation, sometimes referred to as the fifth vital sign, should be checked by pulse oximetry in all breathless and acutely ill patients. The other vital signs are pulse, blood pressure, temperature and respiratory rate – capillary refill time is also helpful. Oxygen saturation, sometimes referred to as the fifth vital sign, should be checked by pulse oximetry in all breathless and acutely ill patients.

Fig. 2 Oxygen cylinder needs replacing as it is in the 'red zone'

Storage and cleaning of your oxygen cylinder

The most commonly used portable cylinder is the C/D cylinder. It is pressurised to 2000 psi and contains 450L of Oxygen when full. Oxygen tanks should only be cleaned with soap and water as cleaning with other products could cause combustion. Oil and petroleum-based products must be stored away from cylinders as they could cause a fire.

The gauge on the side of the tank should be regularly checked and the cylinder replaced if the needle points to the red zone (Figure 2).

Administering oxygen

Prior to administration turn the dial on the side of the tank to the fully 'on' position. The litre flow gauge is found on top of the cylinder and you should turn this to choose the most appropriate litre flow. Oxygen tubing should be securely connected to the 'Christmas tree' adapter on the top (Figure 3).

Oxygen is highly flammable so be extremely careful using it if there is a fire at the scene of an incident and during defibrillation. Oxygen should be moved away by at least an arm's length prior to administering a defibrillating shock.

Fig. 3 Oxygen cylinder front and back

'OXYGEN SHOULD ONLY BE ADMINISTERED BY STAFF WHO ARE TRAINED AND COMPETENT. GUIDELINES FOR OXYGEN ADMINISTRATION ARE SET BY THE BRITISH THORACIC SOCIETY.'

If the casualty is conscious, low flow oxygen can be administered through nasal cannula (nasal specs). Give at a rate of 1-6L/min.

Alternatively, you can give oxygen to a conscious casualty through a non-rebreather mask. This can be used to administer high flow oxygen. This would be required for the patient spontaneously breathing and displaying signs and symptoms of hypoxia with an accompanying low pulse oximetry reading. It requires a flow rate of 12-15L/min. Prior to administration the reservoir bag should be filled with oxygen by placing a finger over the one-way valve to enable it to fill. The reservoir bag should not be completely empty when the patient inhales.

Both the nasal cannula and the non-rebreather mask are only effective when the patient is breathing.

For an unconscious patient – administering oxygen using a BVM

In an unconscious non-breathing casualty, oxygen should be administered through the bag and valve mask (BVM) (Figure 4). Airway adjuncts may be deployed if available and appropriately trained staff are able to insert them.

Fig. 4 Delivering oxygen through the bag and valve mask (BVM)

For a patient who is unconscious and not breathing or struggling with respiratory effort, positive pressure ventilation should be initiated immediately. If there is no oxygen available, the BVM can be used with room air.

In order to ventilate a patient effectively; tilt the head and lift the chin, or perform a jaw thrust. Maintain a tight seal between the patient's face and the mask, this is best achieved using the C grip. If the patient is unconscious and without a gag reflex and airway adjuncts are available, the airway may be better maintained using an Igel, oropharangeal or nasopharangeal airway, provided you are trained and competent to use them. (nasopharangeal airways can be used even with a gag reflex).

For an unconscious casualty with a pulse, or someone with severely depressed respiratory function, a ventilation rate of one breath every 6 seconds is adequate, and success can be seen when chest rise is observed. Do not over-ventilate, squeeze gently and steadily until chest rise is observed. Although ventilation via BVM can be accomplished with one rescuer, a greater success rate can be achieved with two people. One rescuer ensures an airtight seal between the mask and the patient's face, the second squeezes the bag every six seconds.

If giving chest compressions in combination with the BVM, you should use the ratio of 30 compressions to 2 BVM squeezes. Do not over-ventilate the patient. Squeeze gently and steadily. Take care to ensure you continue to tilt the head and lift the chin to maintain an optimally open airway.

Oxygen should not be given without accompanying pulse oximetry (SpO_2) monitoring. However, it is important to understand that pulse oximetry is unable to detect carbon monoxide blood concentrations or rising concentrations of carbon dioxide. It is vital to carefully monitor the whole patient and escalate care to the emergency services and appropriate advanced care physicians as quickly as possible.

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Emma Hammett is a qualified nurse and award-winning first aid trainer with over 30 years' healthcare and teaching experience. She is the Founder and CEO of First Aid for Life, a multi-award-winning, fully regulated first aid training provider specialising in first aid and medical emergency training for Dental Practices.

10.1038/s41407-019-0016-7

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Tiny tots bring great benefits to the Maltings

The Maltings Dental Practice in Grantham was the winner of the inaugural Dental Check by One Practice of the Year award. Sponsored by NASDAL, the award recognises the practice that has most successfully introduced Dental Check by One. Created by the British Society of Paediatric Dentistry, the aim of the Dental Check by One campaign is to increase the number of children who access dental care aged 0-2 years.

The award is important as it illustrates the fact that doing the right thing is the right decision from a business perspective. The Maltings has supported Dental Check by One since it was launched. In the first few months they welcomed an additional 50 under twos to the practice.

The award was presented by Chief Dental Officer Sara Hurley at BDIA Showcase. Also present was the Chairman of NASDAL, Nick Ledingham (right) and Claire Stevens (left), spokesperson for BSPD. Here Oral Health Educator Susie Verow describes her working life at the Maltings.`

There's no halting the Maltings team!

Susie Verow, Oral Health Educator at the Maltings Dental Practice, illustrates why the practice won the inaugural DCby1 Practice of the Year award

During my career I have seen a lot of significant changes in the dental world and dental nursing has become more than a job. I am always enthusiastic and passionate to provide the best care to my patients.

At the practice my roles include general dental nursing, working with visiting oral surgeons within the practice, as well as running my own clinics which include x-ray taking, promoting better oral health and disease prevention. Disease prevention is a key part of the practice ethos and patients are routinely offered an appointment to provide them with oral hygiene education. Within these clinics I also provide the application of topical fluoride.

I am proud to be a member of The Maltings Dental Practice team, as we thrive on putting our patients' best interests first, with prevention being at the forefront. We regularly have team meetings to gather ideas on how to promote prevention and learn how we

Susie has worked at The Maltings Dental Practice in Grantham, Lincolnshire for 10 years, and has been a dental nurse since 1992.

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'I REGULARLY VISIT THE LOCAL PRIMARY SCHOOLS AND NURSERIES TO DELIVER ORAL HEALTH EDUCATION. WE BELIEVE IN REACHING OUT TO CHILDREN WHO DO NOT ATTEND THE DENTIST.'

can improve our care. Our supportive large management team actively encourage us to go ahead with any ideas we have. For instance, during National Smile Month our main feature was a photo booth in our busy reception where children and parents (and even staff) joined in the fun of a selfie taken with various props. It was a great success.

I have also taken part in a children's activity week, where I met families and completed educational tasks and activities, which was very popular.

I regularly visit the local primary schools and nurseries to deliver oral health education. We believe in reaching out to children who do not attend the dentist. We are actively involved in a scheme called Lincolnshire Smiles where we adopt a school and the children are encouraged to brush their teeth daily there. I provide the school with education and support. Following a recent nursery visit we managed to trigger media attention and appeared in the local newspaper.

Some of the activities are practice led whilst others are part of partnership working between NHS England and the Local Authority. One of the partners at the practice, Jason Wong also chairs the Local Dental Network so the practice is heavily involved in initiatives that occur in the community. Dental Check by One was promoted in a prevention roadshow that I attended and where I was asked to facilitate one of the sessions. Minutes were taken throughout the event and our practice held a meeting where we discussed what initiatives we could put forward to benefit our patients. Dental Check by One was totally supported by the whole team. We formed a key group of members to help carry through the ideas and implement changes.

Our amazing reception team are also involved with the delivery of key information. They share a great prevention vibe, targeting expecting parents with vital information and encouraging them to bring in their children for their first appointment. Some parents were surprised that we would want to see their baby so early but because the whole team is on board they were soon reassured. We have seen more parents bringing their babies in before their first birthday.

Reaching out in our community to raise of prevention is at the heart of our efforts. The award has been highly affirmative and instilled us with more confidence to continue with our work, making every contact count.

Some of the other ways that we have promoted Dental Check by One include:

- Social media has drawn a huge amount of attention and prompted existing and new parents to contact us to book their child's first dental examination
- We regularly attend schools and nurseries to provide vital education on dental health
- Display boards and a TV in our reception area showing Dental Check by One prevention messages
- We have created a card which romotes the Brush DJ toothbrushing app, endorsed by BSPD and the only dental app in the NHS digital library.

The NASDAL practice of the year award is set to run again in 2019. Look out for more info on the NASDAL website: www.nasdal.org.uk

10.1038/s41407-019-0018-5

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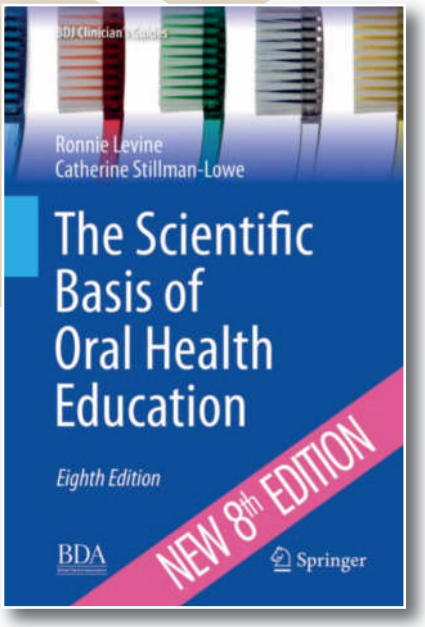

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Research dental hygienist – whoever knew there was such a role?

After spotting a job advertisement for a research dental hygienist, **Rachael England** soon found herself in the job and out on the road.

After 13 years of working clinically, I was feeling the need for a new role outside the surgery and with a Master's in Public Health under my belt, I was particularly interested in academia. When I saw a role advertised for 'research dental hygienist' at University College London, the timing couldn't have been better.

I was joining the British Regional Heart Study (BRHS) as a member of the field team. This longitudinal study began in 1978 to understand why high numbers of men were dying prematurely. Around 7,500 men aged 40-60 were recruited via their local GP surgeries. Over the following 40 years the men have undergone several health screenings, activity monitoring, completed annual questionnaires and every two years the office team liaise with their GP surgeries to check for serious health events. At the outset, the team looked at hard water, cardiovascular disease and socioeconomic factors in 24 towns around the UK. The men are now aged 77-97, making it one of the longest running cohort studies in the UK.

In 2012, Dr. Sheena Ramsay joined the research team as Principal Investigator. Her early career as a dentist meant the study developed a more dental theme. As we know, the effects of oral-systemic disease are significant with this age group who may suffer from chronic diseases such as diabetes and cardiovascular disease. Also in this cohort, we could examine the self-reported diet sheets and carry out frailty assessments and dental health checks to see any associations between the remaining dentition and how 'well' the men are now.

The health screenings were to examine the remaining 1,400 men who are well enough to attend the mobile clinic in the town where they were originally recruited (see figure 1). The field team comprised a nurse, a phlebotomist and a dental hygienist (me). In addition to a dental examination, the men would have the following recorded:

- BMI
- blood pressure,
- arm, calf and waist circumference
- frailty measurements (ie grip strength)
- walking speed
- time of standing to sitting
- lung function.

The participants would also complete a memory test while they waited. The office-based team would find premises suitable for the mobile clinic, contact the participants, send reminders, deal with all administration and book hotels for the field team to stay in.

Fig. 1

The first two weeks were spent at University College London training and organising the equipment and, most importantly, developing the study protocol and calibrating the dental measurements. Working with Dr. Ramsay, I developed a coded dental chart that would record:

- pocket depth
- loss of attachment
- number of teeth
- functional pairs of dentition,
- dentures
- xerostomia score
- any other pathology.

I was also responsible for carrying out the lung function assessment using a Vitalograph machine. This is used to assess how well your lungs work by measuring how much air you inhale and how much and how quickly you exhale. The data it delivers - spirometry - diagnoses asthma, chronic obstructive pulmonary disease (COPD) and other conditions that affect breathing. This is especially appropriate among older people who may have been exposed to damaging substances in their earlier lives. The research manager thought the Vitalograph would fit well with the dental station and I only needed a day of training to get to grips with.

Despite it being a relatively simple piece of equipment, the training didn't prepare me for the challenge of instructing patients who have experienced cognitive decline. Thankfully, the patient management skills I had learned through being a dental hygienist helped me through.

We then carried out a pilot study. Our statistician belongs to a church in North London and very kindly recruited members of the congregation. This allowed us to tweak the dental protocol, making it easier to record and ensure the whole set up worked smoothly with the right equipment. After a small electrical fire and an urgently purchased new Vitalograph, we were ready to head to the first town!

Anxiously heading out of London to Bedford we navigated together. The first venue was a community centre, where we set up the mobile clinic in a conference room. Early the next morning the men started arriving.

Each day we had capacity to see 20 men. However, the number who came in varied greatly. Bedford proved to be quite busy, with fit, well and active men aged 80+, mostly still with the majority of their own dentition – albeit heavily restored. After three days we returned to London for a debrief. These sessions allowed us to deal with any challenges, make some input to the next stage and chat about the results.

Next, we headed off for two weeks in Scotland and the North-West. Dunfermline, Falkirk, Ayr and Carlisle. Far fewer participants attended and they were much frailer and mostly had broken or missing teeth or faded, plastic dentures.

As health professionals we have all heard about the North/South divide and have discussed determinants of health during our training. Yet, to see it so starkly, in real life, in front of my eyes was staggering.

'AS HEALTH PROFESSIONALS WE ALL HAVE HEARD ABOUT THE NORTH/SOUTH DIVIDE AND HAVE DISCUSSED DETERMINANTS OF HEALTH DURING OUR TRAINING. YET TO SEE IT SO STARKLY, IN REAL LIFE, IN FRONT OF MY EYES WAS STAGGERING.'

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Every town holds its own unique history that has shaped the health of these men and their rate of decline into old age. Taking a walk around in an evening I could observe the ghosts of past industry, Burnley's now converted cotton mills and the traces of a mining history, Scunthorpe's steel mills, Lowestoft's deep-sea fishing and Hartlepool, once a thriving port with ship building and steel making industries. With the decimation of the North-East's industrial age, 10,000 jobs were lost, leaving a town the hallmarks of endemic deprivation – substance abuse, urban decay, crime and twice the national average rate of unemployment.

One participant told me 'you'll never get rich working with your back', a testament to the tough, working lives these men have led. Despite this, I have never spent such precious time with people before, older participants who had served in World War II as well as those slightly younger who regaled us with stories of their National Service. We laughed with them over crazy adventures and cried with them when they described the passing of their beloved wives.

What really struck me was the poor state of dental health in every town – except (perhaps predictably), Guildford, Bedford and Southport. Nothing could prepare me for seeing such terrible neglect in so many men, I kept asking myself – how does this happen? How have we reached a state where our elderly are somehow managing without a functional dentition?

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surgeries and church halls to community centres and conference halls. Being greeted with a friendly smile and a cup of tea was the reassurance we needed the session would run smoothly.

After 6 months the data collection was complete. It has been sent for entry and processing which takes up to 12 months before the research teams can begin analysis of the findings.

As a career option this role was a refreshing change from working in a clinic, without being too dissimilar.

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'TAKING A WALK AROUND IN AN EVENING I COULD OBSERVE THE GHOSTS OF PAST INDUSTRY, BURNLEY'S NOW CONVERTED COTTON MILLS AND THE TRACES OF A MINING HISTORY, SCUNTHORPE'S STEEL MILLS, LOWESTOFT'S DEEP-SEA FISHING, HARTLEPOOL – ONCE A THRIVING PORT WITH SHIP BUILDING AND STEEL MAKING INDUSTRIES.'

Some of the participants shared their barriers to treatment, such as a lack of:

- funds
- time - due to being the primary carer for their spouse
- availability of NHS access
- commitment to caring for themselves.

Many were just happy to maintain the status-quo and have regular check-ups and what we probably consider to be palliative dentistry. Is this acceptable with our current knowledge of the oral-systemic link and frailty in old age related to an ability to eat nutritious food?

We need to improve awareness in this age group that their oral health affects their general health and how important it is to see a dental professional regularly.

The role is intense as you see a participant every 10-15 minutes on a busy day. Ergonomics are pretty much out of the window as you lean over a masseuse bed to complete the examination.

Moving between towns was our greatest challenge, packing the equipment back into the van, driving several hundred miles, finding a new location and setting the clinic back up. The facilities varied from doctors'

Although dental hygienists can get involved with research through epidemiological data collection, I would really encourage dental therapists and dental hygienists to look into the role of Research Dental Hygienist. For me, it is wonderful to be a part of such a historic study that has made an impact on so many lives.

It is both fascinating and disturbing to witness first-hand the inequities in health the population suffer and how the determinants of health shape our lives. Our elderly population have amazing lives to share; we should all take the time to listen.

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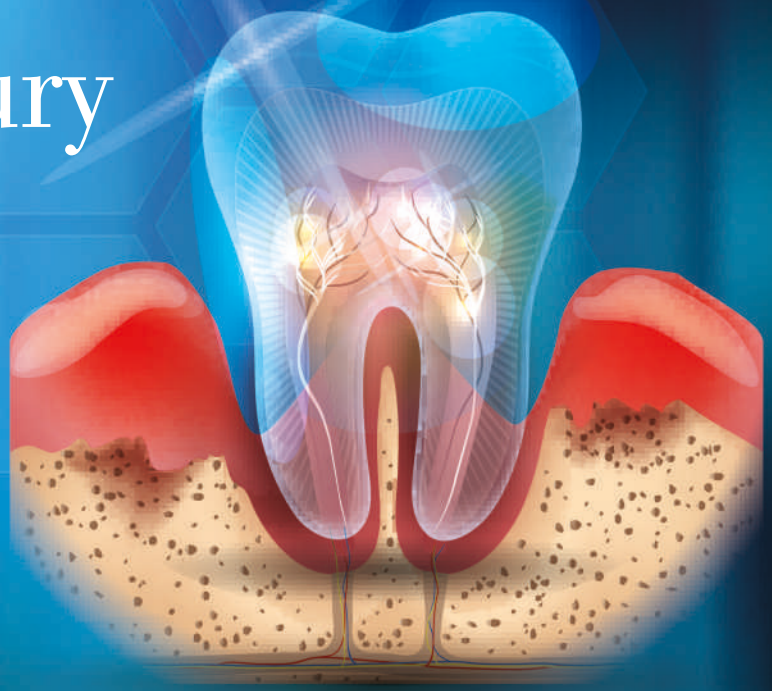
Rethinking *perio* classification for the 21st century



A precis by **Caroline Holland** of the British Society of Periodontology's implementation plan for the 2017 perio classification in which a diagnosis of periodontitis is followed by 'stage and grade.'

The 2017 World Workshop Classification of Periodontal Diseases and Conditions – newly released - provides a contemporary system for classifying the periodontal status of undiagnosed patients. Major novelties include the introduction of staging and grading for periodontitis patients and the loss of the term 'aggressive periodontitis'.

The staging/grading system is designed primarily to capture and distinguish:

(i) a patient's history of periodontal tissue destruction, as defined by the severity of bone and clinical attachment loss; and

(ii) a patient's disease susceptibility and risk of future disease progression, as measured, for example, by the severity of bone and clinical attachment loss relative to the patient's age.

The British Society of Periodontology (BSP) implementation plan aims to integrate established diagnostic tools with the new 2017 classification system. The diagnostic work-up of periodontal patients will always include a detailed medical and dental history, oral examination and further investigations (including, where appropriate special tests, radiographs and a radiological report) which will allow the differentiation between the different types of periodontal disease, for example:

- gingivitis
- necrotising periodontal disease
- periodontitis associated with systemic disease
- non-plaque-induced gingivitis.

But importantly, it will allow for the recognition of alveolar bone loss or attachment loss due to causes other than periodontitis, for example, surgical crown lengthening, orthodontic treatment, perio-endo lesions, impacted third molar and restoration margins, referred to in the new 2017 classification as a 'reduced periodontium in a non-periodontitis patient'.

Advances in knowledge, and there have been many, since the 1999 International Classification of Periodontal Diseases are

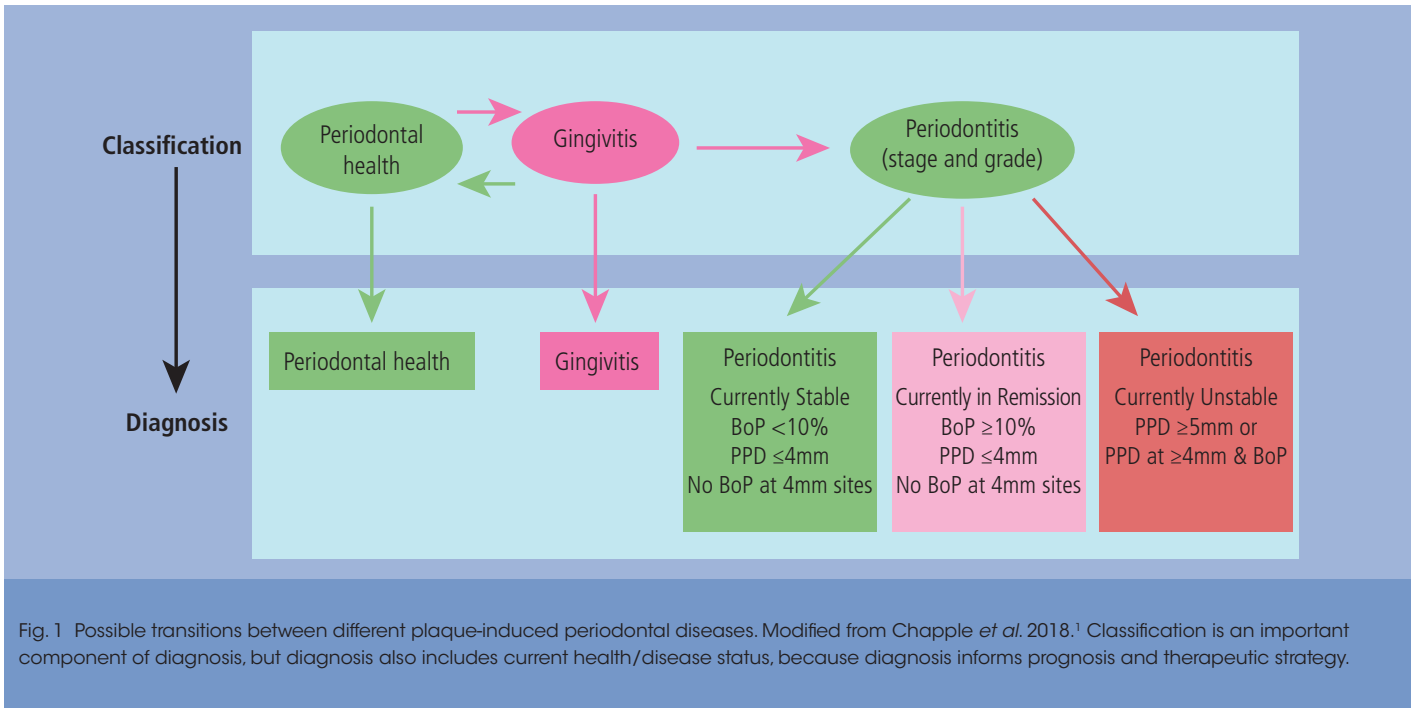


Fig. 1 Possible transitions between different plaque-induced periodontal diseases. Modified from Chapple *et al.* 2018.[1] Classification is an important component of diagnosis, but diagnosis also includes current health/disease status, because diagnosis informs prognosis and therapeutic strategy.

reflected in the 2017 World Workshop Classification system for periodontal and peri-implant diseases and conditions. Determined by the joint European Federation of Periodontology (EFP) and American Academy of Periodontology (AAP) management committee, the aim of the newly released system is to create an approach that:

- could be implemented in general dental practice, the environment where over 95% of periodontal disease is diagnosed and managed
- captures and distinguishes the severity and extent of periodontitis on one hand, as well as a patient's susceptibility for periodontitis on the other
- accommodates the current periodontal status of a patient (probing pocket depth [PPD], and percentage of bleeding on probing [BoP]).

In order for a clinician or student to understand periodontal assessment and diagnosis in the context of the 2017 classification system, it is critical that the first step is to determine the type of periodontal disease.

For the first time, the 2017 classification system gives clear definitions of periodontal health and gingivitis for:

- Patients with an intact periodontium
- Patients with a reduced periodontium due to causes other than periodontitis
- Patients with a reduced periodontium due to periodontitis.

For a detailed discussion of the evidence and rationale behind these definitions, the reader is referred to the consensus paper of workgroup one of the 2017 World Workshop.[1]

The distinction between chronic and aggressive periodontitis has been removed on the basis that there was little evidence from biological studies that chronic and aggressive periodontitis were separate entities, rather than variations along a spectrum of the same disease process. The exception was classical localised juvenile (aggressive) periodontitis, where a clearly defined clinical phenotype exists. However, there was unease about including this as a distinct and separate entity within the classification system. The only other distinct types of periodontitis that the 2017 classification system recognises are necrotising periodontitis and periodontitis as a manifestation of systemic disease.[2]

Once a patient has been diagnosed with periodontitis, staging and grading should be performed. Staging and grading is largely about past disease experience, for instance, how much tissue has already been lost (staging) and what does that tell us about the patient's risk of future tissue loss (grading). Furthermore, patients can be periodontally stable following periodontal treatment, which is assessed via PPD and BoP, even though tissue loss is generally irreversible. So the diagnostic statement captures the type of disease (periodontitis), its stage and grade, and its current status.

Importantly, a successfully treated periodontitis patient remains a periodontitis patient for life because the disease may progress at any time if periodontal maintenance is sub-optimal and risk factors are not controlled. Thus, attachment loss needs to be reflected in their current diagnosis, even if they have been successfully treated and are currently a case of health.(Fig 1.)

'IN ORDER FOR A CLINICIAN OR STUDENT TO UNDERSTAND PERIODONTAL ASSESSMENT AND DIAGNOSIS IN THE CONTEXT OF THE 2017 CLASSIFICATION SYSTEM, IT IS CRITICAL THAT THE FIRST STEP IS TO DETERMINE THE TYPE OF PERIODONTAL DISEASE.'

Stability requires careful maintenance and continued risk factor control. Because the staging and grading module within the classification system does not account for current health/disease status, the BSP implementation plan incorporates current status into the diagnosis by accounting for presence of true pockets and bleeding on probing (inflammatory status), because these two elements drive treatment planning.

In addition to a simplified staging and grading system, the implementation plan provides a diagnostic decision-making algorithm (Fig. 2), with BPE screening as a starting point in most patients, to guide the clinical management process.

BPE in the context of the new classification system

The BPE is a clinical application of the epidemiological community periodontal index of treatment needs (CPITN) (or community periodontal index [CPI]) tool, developed by the British Society of Periodontology[3] in order to rapidly screen for periodontal disease in patients with no overt signs of periodontal disease based on visual inspection alone. Hence, the BPE is a screening tool employed to rapidly guide clinicians to arrive at a provisional diagnosis of periodontal health, gingivitis or periodontitis, irrespective of historical attachment loss and bone loss (that is, irrespective of staging and grading). As such, the BPE guides the need for further diagnostic measures before establishing a definitive periodontal diagnosis and appropriate treatment planning.

Performing a BPE entails 'walking' the probe around each tooth, and recording only the worst score (code 0–4) in each sextant for efficiency. The markings of the BPE/WHO probe at 3.5 mm and 5.5 mm are designed to allow the clinician to easily establish the presence or absence of PPD of at least 4 mm and 6 mm, respectively. Specifically, as soon as the black band of the probe is partially obscured, the PPD is at least 4 mm (BPE code 3), and as soon as the black band of the probe is completely obscured, the PPD is at least 6 mm (BPE code 4).

The BPE and its equivalent systems have been well established in the clinical community across Europe due to its relative simplicity and efficiency. The pathway described here is entirely consistent with current BSP guidance[4] on the use of the BPE, that is, its prosecution and interpretation has not changed. However, it is important to recognise that the BPE is of limited value in patients who have already been diagnosed with periodontitis. This is particularly relevant in the context of the new 2017 classification system, as staging of periodontitis is based on radiographic bone loss and/or CAL, which is not captured by the BPE. For example, the BPE is unable to identify patients with historical periodontitis, as it is based upon BoP and PPD, rather

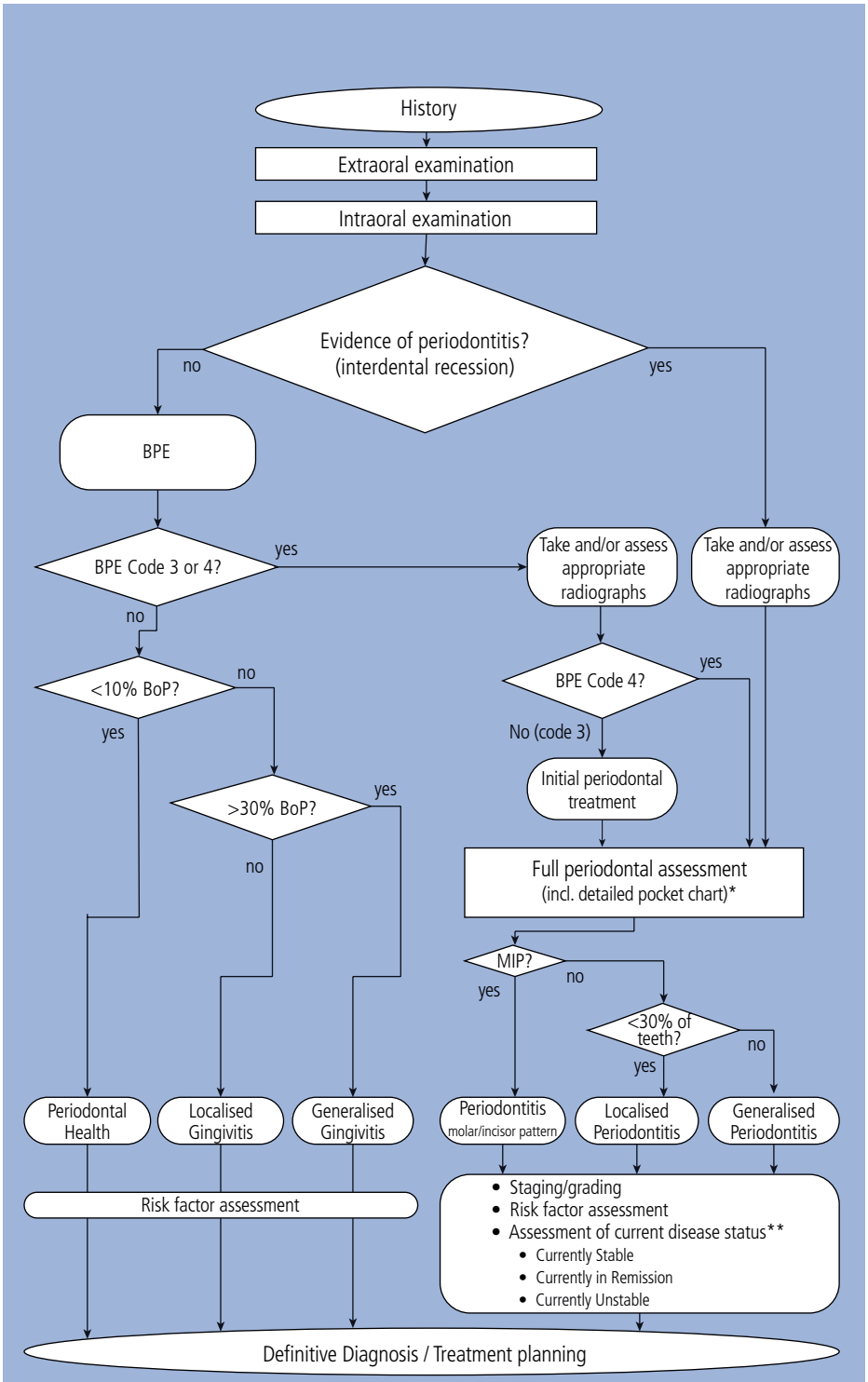


Fig. 2 Algorithm for clinical periodontal assessment of plaque-induced periodontal disease. BPE – basic periodontal examination, BoP – bleeding on probing, MIP – molar incisor pattern. *A diagnosis of periodontitis requires CAL/radiographic bone loss at two non-adjacent teeth that cannot be attributed to causes other than periodontitis. **Assessment of current disease status as: currently stable: BoP<10%, PPD≤ 4 mm, no BoP at 4 mm sites; currently in remission: BoP≥10%, PPD≤ 4 mm, no BoP at 4 mm sites; currently unstable: PPD ≥5 mm or BoP at 4 mm sites.

than recording attachment and bone loss. Therefore, clear and obvious evidence at initial presentation of historical periodontitis ascertained through history, examination (interproximal recession/attachment loss) or radiographs should trigger a full periodontal assessment immediately, as the BPE is effectively redundant in such patients (Fig. 2). For example, using the BPE on a patient with a history of periodontitis and no BPE scores over 2 would wrongly result in a provisional classification of periodontal health (<10% sites with BoP), localised gingivitis (10–30% sites with BoP) or generalised gingivitis (>30% sites with BoP), rather than capture the fact that the patient is a periodontitis patient with a current status of health or gingival inflammation.

diagnostic statement, eg:

Diagnosis = generalised periodontitis; stage IV, grade b; currently unstable.

Risk factors:

Current smoker >10 cigarettes per day

Sub-optimally controlled diabetes.

Establishing a Periodontal Diagnosis as part of a Comprehensive Periodontal Examination

Figure 2 provides a clinical decision-making algorithm to guide the practitioner to the definitive diagnosis, which includes several components, that is, type and extent of disease, periodontitis stage and grade, current periodontal status and risk factor profile. A periodontal assessment should begin with a comprehensive history. If the patient has no evidence of a history of periodontitis, then a BPE screening should be performed. No radiographs would be indicated for codes 0, 1 and 2 and a diagnosis of health or gingivitis can be made. If codes 3 and 4 are apparent then radiographs are required, which will allow determination of bone loss to facilitate staging and grading. This should be followed by a detailed full mouth pocket depth chart for code 4 patients, and for code 3 patients a detailed pocket chart is performed in affected sextants following initial periodontal therapy as an outcome assessment as per current BSP guidelines. If a patient has clear and obvious evidence for a history of periodontitis, either from the history or because of blatant interproximal attachment loss, a full periodontal assessment is carried out, where some assessment of bone loss is necessary, and, if radiographs are not available or justifiable, the staging and grading is performed on the basis of measuring attachment loss in mm from the CEJ.

Disease extent (localised, generalised or, for periodontitis only, molar/incisor pattern) is assessed next. In patients with periodontitis, current disease status is then determined. Finally, a risk factor assessment is essential for treatment planning and patient management.

It may be helpful for a clinician to recognise that, in order to facilitate interpretation, the various components of the classification system (that is, stage/grade/extent) provide categorisations of phenomena that occur along a continuum. It is therefore inevitable that the categorisation may be difficult in borderline cases. Furthermore, causes other than periodontitis have to be considered for any attachment loss and/or alveolar bone loss, in particular if localised to one or two sites. It should therefore be self-evident that clinical judgement will remain the cornerstone of formulating an appropriate diagnosis and treatment plan.

'A PERIODONTAL ASSESSMENT SHOULD BEGIN WITH A COMPREHENSIVE HISTORY. IF THE PATIENT HAS NO EVIDENCE OF A HISTORY OF PERIODONTITIS, THEN A BPE SCREENING SHOULD BE PERFORMED.'

As per current BSP guidance a maximum BPE code of 3 would trigger a panoramic radiograph and/or selective periapical radiographs, which will allow determination of percentage bone loss relative to the root length. A maximum BPE code of 4 would trigger periapical radiographs (or a panoramic radiograph) and a detailed pocket chart (Fig. 2). Following a radiological analysis and report and, where appropriate, additional diagnostic tests, a final diagnosis of the type of periodontal disease is made.

The diagnostic pathway includes the following stages:

1. Determination of the type and extent of periodontal disease and, in the case of periodontitis, its staging and grading
2. Identification of current health/disease status (via PPD and BoP).

The final diagnosis would embed all of these components in a 'diagnostic statement', for example:

Diagnosis = generalised periodontitis; stage IV, grade B; currently unstable.

Finally, relevant risk factors should be documented immediately below the

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Dietrich T, Ower P, Tank M, *et al.* Periodontal diagnosis in the context of the 2017 classification system of periodontal diseases and conditions – implementation in clinical practice. *Br Dent J. 2019* **226:** 16-22. Available at: https://www.nature.com/articles/sj.bdj.2019.3

10.1038/s41407-019-0014-9

Trailblazing 'real world' *apprenticeships*

Apprenticeships are gradually becoming available to all members of the dental team; **Michael Wheeler** explains what, why and how to access.

Apprenticeships date back to medieval times; trace back through the history[1] of dentistry and you will find examples of apprenticeships existing in the era before formal qualifications. As dentistry developed, apprenticeships died out. Between the 1930s and 1970s, the only apprentices were dental technicians, while in the 1990s a few dental nurse apprenticeships came into existence.

In 2012 the Richard Report[2] was published and set a new agenda. The report outlined the need for greater employer engagement with apprenticeship developments as well as clear and trusted qualifications, with more robust quality assurance. The concept of an end point assessment (EPA) along with a more formal approach to assessment was introduced.

'The final test and validation must be holistic, in that it seeks to test the full breadth of the relevant competencies not merely the incremental progression of the apprentice. That may take the form of a project or an assessment in *front of an examiner. It should be performance and real world based, rather*

Table 1 Apprenticeships and equivalent educational standards

Name	Level	Equivalent educational level
Intermediate	2	GCSE
Advanced	3	A level
Higher	4,5,6	Foundation degree and above
Degree	6 and 7	Bachelor's or Master's degree


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than just theoretical. It should be primarily at the end of an apprenticeship, not measuring progress during it' (Richard report 2012).[2]

Apprenticeships must fit into the following educational levels as set out by the Governments of England, Wales and Northern Ireland (See Table 1).[3]

Employers were asked to take forward apprenticeships and form 'trailblazer groups.' Genix Healthcare rose to this challenge and set up the dental trailblazer group in 2014 leading to the development of dental nurse, dental technician and dental practice manager apprenticeships.[4] These are in operation today, although in the process of further development. The dental nurse and dental technician apprenticeships are being reformatted into what are known as 'integrated awards'. This means that the EPA becomes the final stage of the apprenticeship and is the last assessment before applying for GDC registration.

The apprenticeship training course is funded through the apprenticeships levy. The income for this government-controlled levy comes from all UK large employers with a pay bill of more than £3m. Introduced in 2017,[5] large employers contribute 0.5% of their wages bill into the apprenticeship levy funds. In dentistry, most NHS trusts and the large dental corporates are classed as levy paying organisations. They pay no training fees for employees classed as an apprentice. Small employers such as dental practices or laboratories can still take advantage of the apprenticeship levy. They contribute 10% of the total apprenticeship training costs and the government pays the remaining 90%. However, the employer contribution will reduce to 5% at some point in 2019.[6] For dental nurses, the training provider may draw down up to £6,000, this is the funding per dental nurse made available via the Education and Skills Funding Agency for delivering and ensuring the necessary assessment is carried out as part of the training programme.

'THE APPRENTICESHIP TRAINING COURSE IS FUNDED THROUGH THE APPRENTICESHIPS LEVY. THE INCOME FOR THIS COMES FROM ALL UK LARGE EMPLOYERS WITH A PAY BILL OF MORE THAN £3M.'

To be an apprentice you should meet the following criteria:[6]

- Be employed for a minimum of 30 hours per week
- Work alongside experienced staff
- Gain job-specific skills
- Have a contract of employment, earn a wage and get holiday pay
- Be given study time related to the role (the equivalent of one day a week)
- Be aged over 16 (there is no longer an upper age limit).

If an NHS trust or very large dental corporate body is paying into the levy, they will pay no training fees for their dental nurses.

Table 2 Dental apprenticeships recognised by the Institute for Apprenticeships and Technical Education

Job Role	Level (training period)	Funding available to training provider	Awarding body	End point assessment organisation (EPAO)	Notes
Dental nurse	3 (18 months)	£6,000	NCFE, City and Guilds, NEBDN	NCFE, City and Guilds	Moving to an integrated award
Dental practice manager	4 (18 months)	£9,000	NCFE, Pearson's	NCFE, Pearson's	End point assessment being redefined to meet IFA and OFQUAL requirements
Dental technician	5 (36 months)	£18,000	Awarding University eg, University of Bolton	Awaiting final confirmation	Moving to an integrated award EPAO by default becomes awarding university

Table 3 Dental apprenticeships in development and recognised by the Institute for Apprenticeships and Technical Education

Job Role	Level (training period)	Funding available to training provider	Awarding body	End Point Assessment Organisation	Notes
Laboratory technician	3 (18 months)	£21,000	BTEC (Pearson's)	NOCN SIAS	Under review to replace an earlier apprenticeship for a dental laboratory assistant
Oral health Practitioner	4 (18 months)	£9,000	Yet be agreed	Yet to be agreed	Likely to be ready to deliver in the autumn 2019
Orthodontic Therapist	4 (15 months)	Yet to be agreed	Yet to be agreed	Yet to agreed	Likely to be ready to deliver in the Winter of 2019
Clinical Dental Technician	5 (24 months)	Yet to be agreed	Yet to be agreed	Not required as integrated award made by a University	Likely to be ready to deliver in the Autumn 2019

If the dental nurse is employed by a non-levy paying dental practice, (the majority of traditional dental practices), the training cost to the practice is currently 10% of the funding band. Therefore, the cost to the employer is only £600.00, reducing to 5% (£300) in 2019[7] (See Table 2 and Table 3).

As the following apprenticeships lead to GDC registration, the current modes of training, entry criteria and curriculum based on Preparing for Practice[8] do not change:

- Dental nurse
- Orthodontic therapist
- Dental technician
- Clincal dental technician.

The General Dental Council regulates and inspects training providers and awarding bodies to the current standards. The laboratory technician level 3 award is being reviewed by the dental trailblazer group to provide an initial award for dental technicians, which may be undertaken before progressing to the level 5 GDC registerable award.

The oral health practitioner apprenticeship has been developed for dental nurses wishing to enhance their skills and gain a formal qualification in oral health education and promotion. It is designed to support dental practices in delivering enhanced oral health promotion in the community they serve eg to early years groups, ante-natal groups, care home staff or targeted OHI at individual patients within the dental practice. This apprenticeship will provide an opportunity for skills in systemic health screening as well as the topical application of fluoride to be acquired.

In addition to the dental specific apprenticeships there are others that support the development of the dental team. Management and leadership skills are key; apprenticeships in this area are already agreed and being delivered by several universities, these include:

- Level 6, Chartered manager
- Level 7 Master's degrees in leadership and management and MBAs.

'THE INSTITUTE OF APPRENTICESHIPS AND TECHNICAL EDUCATION SETS OUT THAT APPRENTICES ARE PLAYING AN INCREASINGLY IMPORTANT ROLE IN BRITISH INDUSTRY, AND IT IS IMPORTANT THAT THE RIGHT STRUCTURES ARE IN PLACE'

Teaching and mentoring qualifications from level 3 to 6 are in development; already agreed and in delivery is a level 7 (MSc) for an academic professional engaged in teaching and /or research. Also, recently agreed is a level 7 (MSc) in Advanced Clincal Practice which provides for universities to deliver programmes in subject-specific areas, such as periodontology, endodontics and oral surgery, and for students on these programmes to receive funding of up to £12,000 to complete the award.

In order to deliver an apprenticeship in any subject, the training provider must be on the Register of Apprenticeship Training Providers (RoATP).[9] They must ensure that it's possible for apprentices without a qualification in Maths and English at level 2 to reach this level. Additional funding is available to support these apprentices as it is a requirement that level 2 English and Maths is completed prior to taking the EPA. For those with an Education Health and Care (EHC) plan or a Personal Legacy Statement, the minimum requirement in Maths and English is entry level 3.[10] Those who have British Sign Language (BSL) as their primary language can substitute the BSL qualification for English.[11]

The Institute for Apprenticeships and Technical Education recognises that apprentices are playing an increasingly important role in British industry. It's important that the right structures are in place to equip people with the right skills; for the dental team this equally applies and allows for much greater support for training and skills escalation than has been possible in the past.

Apprenticeships are available to suit the training needs of all members of the dental team. Details may be obtained by visiting the Institute of Apprenticeships and Technical Education: http://www.instituteforapprenticeships.org/.

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'THE ORAL HEALTH PRACTITIONER APPRENTICESHIP HAS BEEN DEVELOPED FOR DENTAL NURSES WISHING TO ENHANCE THEIR SKILLS AND GAIN A FORMAL QUALIFICATION IN ORAL HEALTH EDUCATION AND PROMOTION.'

Michael Wheeler is an RAF trained dental hygienist, an honorary senior lecturer at the University of Kent and an HEE programme manager..

10.1038/s41407-019-0003-z

An avid OT **ambassador**

Orthodontic therapist **Sarah MacDonald** shares her thoughts, knowledge and experience.

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It's little more than 10 years since Orthodontic Therapy became a profession with a title recognised by the General Dental Council. For many prescribing clinicians, an orthodontic therapist can ease the workload by executing a vast variety of orthodontic procedures safely, efficiently and professionally. Many questions arise in regard to training, funding, prescribing, qualification, remuneration, and employment all of which are outlined in this article.

There are multiple hospitals, colleges and universities across the UK which offer a diploma in orthodontic therapy. It is a one year part-time course and is usually structured with an initial three to four week course taught by consultants, orthodontic specialists and orthodontic therapy tutors. This is followed by several additional study days and ongoing workplace training in an approved orthodontic practice or hospital setting. There appears to be a slight disparity in the entry requirements for training courses. Some establishments require one to two years post registration experience in an orthodontic setting. Other requirements may include post general dental nursing qualifications, such as orthodontic nursing and dental radiography.

During my professional qualification and training, I was fortunate enough to have a dedicated and thorough trainer, Christopher Buchanan, an orthodontic specialist at Highland Orthodontics, Inverness. He taught me more than just biomechanics and orthodontic forces. He instilled accuracy and attention to detail in my work, and, maybe most importantly, patience and compassion, which is vital for all of us working in dentistry. Some colleagues have not been so lucky. I have heard countless stories of trainee OTs battling to get their trainers to sign off paperwork and give scheduled tutorials. It may be more helpful to the development of trainee OTs if training institutes were to publish a guide of structured expectations from mentor to mentee and have the power to intervene where necessary. Having operated out of multiple practices in the UK, I have seen a wide spectrum of training techniques. When it comes to procedure delegation, it is common for trainee OTs to be given large workloads, sometimes more than they can handle with unrealistic time constraints. On the other hand,

some re given tasks which are not conducive to their development and must push to experience a variety of different procedures. It is vital that a trainer takes a structured approach to training, giving the OT a wide range of procedures and the appropriate nursing support. This will ultimately benefit the practice in the mid to long term with a capable, competent and experienced team member to supplement the busy workload of an orthodontist.

How to fund your training

Funding can be particularly difficult to obtain as the course itself is private and applicants do not qualify for student loans. The course is self-funded, left up to the employer or student to pay anything between £12,000 and £15,000 for one year of part-time study. There is currently no bursary system in place although NHS Scotland funded 50% of course fees when I studied at Edinburgh Dental Institute. There is the option of a personal career development loan offered by the government (https://www.gov.uk/career-development-loans), which can be used for tuition or other expenditure and are usually offered at reduced interest rates.

Due to the expense of training and lack of viable funding options, many are tied into in-house contracts or agreements. The majority of contracts I have witnessed are fair and reasonable. However, for some potential students, contracts can be biased, exploiting the individual's ambition for career development and progression. It is my feeling that funding should be made more accessible to those who wish to sign up for the course and self-fund. This may put an end to restrictive contracts and allow the individual, once qualified, to progress and explore different opportunities within alternative geographical locations.

Supervision

The matter of prescribing can be a grey area, it seems to me, with conflicting opinions on what 'supervised' and 'prescribed' actually mean. There are strict guidelines for trainee orthodontic therapists who should be under direct supervision of an orthodontist who must be on site and give at minimum a verbal prescription for each patient. By contrast, a qualified orthodontic therapist does not require direct supervision and can work under the prescription of either a general dentist or an orthodontist. If the supervising dentist is present, then a verbal prescription is accepted. If dentist supervision is not available then a comprehensive, written prescription must be provided. More information regarding this is available from the ONG (orthodontic national group) website (https://www.orthodontic-ong.org). I have experienced both ends of the spectrum, but have always stayed within my professional limitations and never deviated from the scope of practice.

From observation of orthodontic therapy network pages and groups on social media, I sense growing confusion surrounding the professional limitations of an orthodontic therapist and the need for clearer guidelines to be implemented. The General Dental Council (GDC) scope of practice is one page in length, which in my opinion is not enough to cover the appropriate boundaries expected of the profession. This is evident with the vast range of clinical procedures open to an orthodontic therapist's interpretation and, for some of us, a mounting pressure to carry out unpredictable 'emergency' occurrences. To maintain a professional and safe environment for orthodontic patients, I believe restrictions need to be more defined and the scope of practice document itself requires further clarification.

Employed or self-employed?

There are approximately 600 qualified OTs throughout the UK in varying locations, both employed and self-employed, in both NHS general practice and hospital settings and in private practice. This makes it difficult to get an accurate comparison salary. According to Glassdoor (one of the world's largest job and recruiting sites), the average salary is between £30-£35k per annum. An informal poll was published recently asking, 'Do you believe that your self-employment status has a positive effect on your pay?' Most felt being self-employed had no positive effect on pay. In my opinion, as a self-employed OT and avid ambassador for the profession, I feel it has pros and cons. From experience, I have noticed that orthodontic therapists working in larger cities such as Manchester, Liverpool, and London tend towards self-employment. This allows for flexible working within the profession; working in multiple practices, working flexible hours, higher pay scale and being able to establish a unique brand identity. However, there is a level of uncertainty and instability with self-employed OTs usually being provided with short-term contracts with short notice periods and few benefits. These include maternity leave, annual leave, sick pay and company pension contribution which their employed colleagues benefit from.

Having practiced orthodontic therapy for seven years the future for the profession looks increasingly positive. I foresee a growing demand for the integration of OTs within NHS, private, and hospital settings. The increase in demand can be attributed to the beneficial effects practices have seen in cost and time-saving measures.

The OT is often the focal point for a patient's treatment. Orthodontic therapy is a popular career development route for many dental professionals and as an avid ambassador, I look forward to witnessing this growth, and further integration within the dental profession.

10.1038/s41407-019-0006-9

Key points

- There are approximately 600 qualified OTs in the UK, employed and self-employed, in NHS hospitals and in practice, and in private practice.
- To maintain a professional and safe environment for orthodontic patients, restrictions need to be more defined and the scope of practice document itself requires further clarification.
- The author recommends that training institutes publish a guide to the training requirements and expectations of trainers and that they have the authority to intervene when these are not met.
- Further information from: https://www.orthodontic-ong.org and: https://www.gdc-uk.org/professionals/education/recent-inspections/inspections-ot.

'IT IS VITAL THAT A TRAINER TAKES A STRUCTURED APPROACH TO TRAINING, GIVING THE OT A WIDE RANGE OF PROCEDURES TO UNDERTAKE AND THE APPROPRIATE NURSING SUPPORT.'

ONG 25 year celebration

The organisation for orthodontic therapists and nurses celebrates its 25th anniversary in 2019 – Chair and orthodontic therapist **Sally Dye** looks back – and forward.

When the Orthodontic National Group was established 25 years ago it was by a group of dental nurses working in the orthodontic specialty who saw the need for a representative body. With foresight, they identified that an authoritative voice was needed to navigate the changes that lay ahead for dental care professionals working in orthodontics.

One of those changes was the creation of the title of Orthodontic Therapist, with which we were closely involved. The introduction of this group of registrants has been transformative. Our close association with the British Orthodontic Society helped greatly and meant we were abreast of key issues relating to all aspects of orthodontics.

Apprenticeships

More recently, the concept of apprenticeships have been introduced by the Skills for Health Organisation regarding training for Orthodontic Therapists. The proposal is for government funding to be available for training centres to cover the cost of the OT training – which as those who have been through the process, will appreciate is extremely expensive.

It must be understood that *an apprenticeship is a style of learning*, it is not a qualification. It can therefore be applied to all manner of careers which includes orthodontic therapy. In fact orthodontic therapy lends itself perfectly to apprenticeship – because it simply means learning while you are working..!

The qualification remains a diploma in orthodontic therapy. The training and curriculum will be unchanged. ONG is very supportive of education and welcomes all opportunities for people to gain access to achieve further qualifications.

We are true to our mission statement which declares that *'we are passionate about orthodontics, and provide a platform for education and valuable information to propel the work of orthodontic nurses and therapists throughout the UK'*.

We provide two full days of lectures during the annual British Orthodontic Conference and a further annual spring study day. Our membership fee includes two ONG journals per year, access to BOS News and Clinical Effectiveness Bulletins, on-line CPD provided by Pro-Dental and reduced registration fees for study days and conference. We have good working links with RCS Ed, GDC, BADN, NEBDN to name a few and are well acquainted with several of the orthodontic therapist training centres.

The committee meet regularly and work tirelessly, and for free, to ensure that our members are well informed of current working regulations and have access to relevant training and CPD. At full capacity our committee is 10 personnel, a mix of nurses and therapists.

For more information and to download our membership form see our website www.orthodontic-ong.org or our Facebook page or email: ONG911@outlook.com.

10.1038/s41407-019-0017-6

Millie, Balraj and Sukh, foundation dentists, whose job it was to go out on the streets and find people who needed dental treatment.

Spreading the love through skill-mix, skill-swap and skill-share

Skill sharing is the ultimate test for volunteers who join the CCDS according to the 2018 shift leaders – or should that be tea-makers?

Imagine going into work one day and finding that you are doing someone else's job. You might be triaging patients while the dentist you normally work with is carrying out the cross infection control. Or your receptionist might be giving out oral hygiene advice while you make a cup of tea for a patient. Welcome to the Crisis at Christmas Dental Service (CCDS).

In the dental profession, we regularly hear the terms skill-mix and team-working used to describe the successful engagement of all members of the dental team. Team working is equally essential for the dental teams that give their time and skills to delivering a yearly Crisis at Christmas Dental Service (CCDS) for people experiencing homelessness.

Each year, volunteer shift leaders are tasked with delivering a high-quality dental service to over 400 homeless or marginalised people. The volunteers arrive as strangers and leave as friends and team mates. The key role of the shift leader is to ensure that a fine balance is met between delivering the service efficiently and ensuring that volunteers have a purposeful, fulfilling experience. Volunteers come from across the country with a range of past clinical experience, skill sets and, of course, varying levels of apprehension.

Crisis gives its volunteers the opportunity to work with new dentists, nurses, technicians and team members to truly test and enhance our team working skills. When was the last time you nursed for a colleague? Sat on reception and triaged patients? Helped in the decontamination room? Our amazing volunteers embrace these challenges and accept their new roles.

Shift leaders and Clinical Dental Supervisors encourage those who are reticent about participating in an unfamiliar environment to try something new, with support and a non-judgmental attitude; this may include supporting highly competent dentists who can extract a complicated third molar without a second thought, yet have never operated an autoclave before, or dental students who have never received patients on reception. By creating a safe environment in which to learn new skills dental colleagues come away from Crisis at Christmas with more fulfilling experiences and a new perspective on their own practice.

In 2018 we had some amazing dental students assisting on reception and giving oral hygiene instruction to all the patients who had completed their treatment. We tried to rotate roles throughout the day so everyone understands the Crisis dental team. A willingness to do the job of others helps build a cohesive team. We try and cultivate opportunities for skill-mix, skill-swap and skill-share to happen.

Skill-mix

All members of the dental team are represented at CCDS, including oral health promoters, dental hygienists, laboratory staff and clinical dental technicians. We encourage dentists to care that falls within their scope of practice. Dental laboratory staff are often called into the clinical environment and where we have clinical dental technicians on site every effort is made to engage them in the clinical processes of denture production. Oral health promotion nurses are encouraged to deliver oral hygiene advice and supported to apply fluoride varnish, especially on outreach triage. Exploiting all the skills of the dental team enables the whole dental team to get involved and contribute to holistic patient care.

Kev Chavda, an associate from Nottingham, mucking in with cleaning up.

A laboratory selfie with (l-r) Delroy Reeves, Desmond Solomon, Ashton Sheerkhan, David Hinkley, Andrea Johnson.

'EVERY ROLE IS CRUCIAL TO THE FUNCTIONING OF THE SERVICE; FROM MAKING A CUP OF TEA FOR A GUEST AND SITTING DOWN TO CHAT ABOUT THEIR LIFE STORY RIGHT THROUGH TO SUPERVISING LESS SENIOR COLLEAGUES IN THE MOBILE VANS.'

Skill-share

Examples include long-standing volunteers learning skills of leadership and management from shift leaders by observing them prior to shift leading. One volunteer learns a skill from another in order to ensure their development; meanwhile, experienced volunteers and dental nurse colleagues teach other members of the team how to use the decontamination suite.

Skill-swap

Skill swapping can have benefits for all involved and can lead to bidirectional learning. Dental volunteers are able to go behind the scenes in the denture laboratory and learn more about the processes of creating a denture. Meanwhile, the laboratory team gain valuable insight into work in the field with the clinical team and observe first-hand the challenges and successes experienced front of house. Clinical Dental Supervisors support and provide clinical insight for all members of the team and in turn gain valuable experience in delivering supervision and chair-side professional feedback. We aim to ensure all volunteers are comfortable and able to achieve their role.

Conclusion

Every role is crucial to the functioning of the service; from making a cup of tea for a guest and sitting down to chat about their life story right through to supervising less senior colleagues in the mobile vans. It is a true testament to our volunteers that they are all happy to undertake any job. We hope that many of you will join us next year as we continue to expand and provide this exceptional service.

Quotes from volunteers:

'Volunteering with Crisis Dental Team was an amazing experience. Every single member of the team had a buzz about them and pitched in from admin duties to decon, clinical treatment to set up and close down, sharing stories and enthusiasm. It gave me a real appreciation of the work our amazing DCPs and reception teams have to do on a daily basis, and I would definitely recommend anyone thinking about it to join in – whether you are a student, clinician, technician or DCP it's a fantastic opportunity to see the meaning of good will in action.'

'Usually I work in a general dental practice, at Crisis at Christmas I get the opportunity to support younger dentists with treatment planning and co-ordinating the flow of patients on the van. It's great to feel that the skills developed from being a practice principal are helpful in supporting Crisis, but also great for me to have the opportunity to develop my own mentorship and teaching skills in an informal way.'

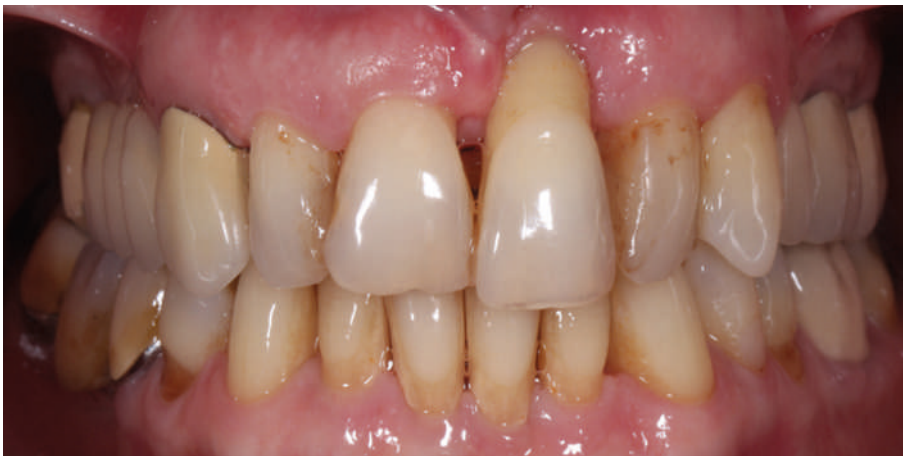
This article was compiled by the Crisis at Christmas Dental Service shift leaders and service organisers: Doughty J, Leigh C, Bradley N, Davies S, Fletcher A, Patel S, Shah N and Tatari A.

10.1038/s41407-019-0015-8

Product news

Product news is provided as a service to readers using text and images from the manufacturer, supplier or distributor and does not imply endorsement by BDJ Team. Normal and prudent research should be exercised before purchase or use of any product mentioned.

SAY CHEERIO TO PERIO



Assessing the true extent of periodontitis can be difficult. PROPACS from PRO Diagnostics UK is a secure cloud-based storage system which can be used to assess and monitor periodontitis. You simply send radiographs to their team of specialist radiologists and they will create a PerioGuide report.

This report uses an easy to understand colour coded system to assess the severity of periodontitis and also give information such as the amount of bone loss at each tooth site – everything you need to accurately classify the severity of your patient's periodontitis and treat it accordingly.

For more information, please visit www.prodiagnostics.co.uk or email sales@prodiagnostics.co.uk.

REDUCE RISK OF PATIENT DATA LOSS

One of the worst things that could happen to your dental practice is a fire in which you lost all your patient data. Ensure your practice keeps sensitive patient images safe by choosing PROPACS from PRO Diagnostics UK.

A cloud based, highly encrypted storage solution for images, PROPACS not only stores images safely but can also protect said images from cyber threats such as viruses, malware and hackers. This means that even when the unspeakable happens your patient images will be ready when you need them.

Don't let a disaster destroy your data, choose PROPACS.

More information is available by visiting www.prodiagnostics.co.uk or emailing sales@prodiagnostics.co.uk.

COLLABORATION PROMISES ONLINE REPUTATION SOLUTION

Working Feedback, the review specialists, have joined forces with Systems For Dentists (SFD), the software provider for dental practice management. Since 1987, dental practices have looked to Systems For Dentists as the independent source for planning, running and management of their dental business. The online reputation management tool called Kudos is provided in partnership with Working Feedback and the integration makes patient feedback a seamless, automated process for practices using Systems For Dentists practice management software.

The new tool helps dental businesses to gain a clearer understanding of the patient journey which they can use to improve upon what they do, increase additional treatment uptake, turbo-charge their online reputation and deliver exceptional customer service that sets the practice apart from its competitors.

The Kudos tool also attracts new patients by sharing review ratings with Google, NHS and key social media platforms such as Facebook.

Working Feedback is a leading solution for patient reviews and enjoys strategic partnerships with Practice Plan, NHS Choices and the Care Quality Commission; it works with hundreds of independent dental practices in helping them grow their business through patient feedback.

More information about the Systems For Dentists tool Kudos is available by visiting https://www.sfd.co/kudos.html and more about Working Feedback's ability to transform a patient journey into business growth can be seen at https://www.workingfeedback.co.uk/dentist/cherrytree-dentalcare.

OHF APPROVES BIOMIN FOR RELIEF OF TOOTH SENSITIVITY AND REMINERALISATION

Surveys indicate that more than 40% of adults experience tooth sensitivity at some stage during their lifetimes. BioMin F, the pioneering toothpaste which replaces lost tooth mineral, has become the first toothpaste to gain accreditation from the Oral Health Foundation (OHF) expert panel for both sensitivity reduction and remineralisation.

BioMin F toothpaste works through its slow release of calcium, phosphate and fluoride ions which form a protective fluoro apatite layer on the tooth surface. This apatite effectively seals any exposed and open dentine tubules which are a key cause tooth sensitivity due to their direct link with the central nervous system.

BioMin Chief Executive Richard Whatley said: 'Oral Health Foundation accreditation is a hugely important endorsement of our toothpaste as it assures consumers that BioMin F has been evaluated by an independent panel of internationally recognised dental experts and academics. These experts have studied all the claims carefully to ensure they are true and are backed up by reliable scientific evidence. OHF has the biggest oral healthcare product accreditation scheme in the world and is internationally recognised. Consumers can be assured that a product which carries the Oral Health Foundation approved logo has had its claims rigorously checked and effectively verified. The accreditation is applicable worldwide.

For more information, visit https://biomin.co.uk/products/biomintm-f-toothpaste.

AWARD FOR ESTELITE

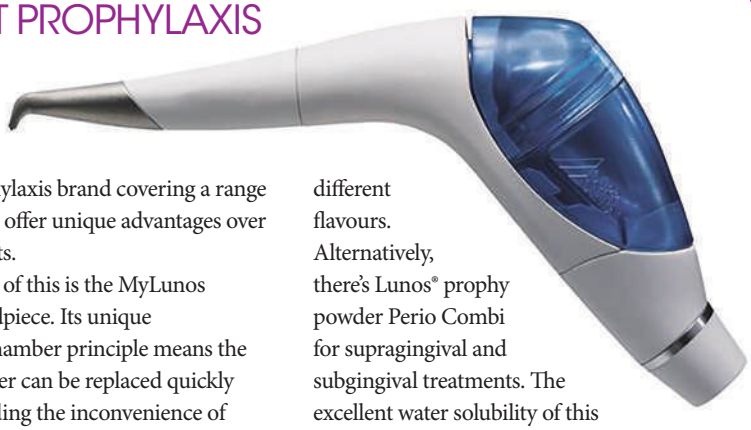
Estelite Sigma Quick has been awarded the Dental Advisor Top Product Universal Composite for the 10th year running. Featuring Tokuyama's patented RAP monomer and Aesthetic 'Pearl' technology, Estelite Sigma Quick delivers an extended working time yet cures in only 10 seconds. There is also less residual monomer and minimal after cure colour change for long term aesthetic satisfaction.

In addition, Estelite Sigma Quick offers 'miracle' shade matching. Because of its unique Aesthetic 'Pearls' it offers inherent shade mimicking so that, in most cases, just one shade will blend perfectly with the natural teeth, leaving invisible margins and undetectable restorations.

These 'Pearls' also facilitate outstanding ability to polish that lasts, allied to high wear resistance and very low abrasion of the opposing teeth.

More information is available by calling Trycare Ltd on 01274 885544 or visiting www.trycare.co.uk/estelite.

PERFECT PROPHYLAXIS



Lunos®, from Durr Dental, is a premium prophylaxis brand covering a range of products that offer unique advantages over existing products.

One example of this is the MyLunos powder jet handpiece. Its unique exchangeable chamber principle means the powder container can be replaced quickly and easily, avoiding the inconvenience of having to refill in the middle of treatment. Furthermore, surgeries can prepare enough powder containers for the whole day. The tip can be rotated 360 degrees, which makes it easy for the operator to use as they can access all areas of the oral cavity. All components are autoclavable and the unit fits all standard turbine couplings.

MyLunos works with various prophylaxis powders. The Gentle Clean variant of Lunos® contains innovative new abrasive agents based on the non-carcinogenic disaccharide trehalose for gentle cleaning in the supragingival area and is available in three different flavours. Alternatively, there's Lunos® prophy powder Perio Combi for supragingival and subgingival treatments. The excellent water solubility of this powder enables safe, virtually residue-free dissolution in the periodontal pocket and suction system. Thanks to this, patients no longer experience the unpleasant grittiness typically associated with this type of product and it doesn't clog up the suction unit or amalgam separator!

Also, included in the Lunos range are polishing pastes, an alcohol-free rinse solution, a fluoride varnish, fluoride gel, and fissure sealant.

Contacts to come?

SCALING NEW HEIGHTS

Periodontal scaling has never been easier or more comfortable than with the W&H range of cost-effective piezo scalers, including the Pyon 2 and the Tigon.

W&H piezo scalers not only feature a ring of LED lights that offer superior visibility within the oral cavity, but they can also be customised with W&H's extensive range of high quality tips. These are suitable for a variety of indications, such as prophylaxis, periodontics, endodontics, implant maintenance and restorative work.

Designed for ultimate ease-of-use, the Tigon enables practitioners to increase or reduce the power of the scaler and the flow volume of the coolant. This ensures patients experience nothing but truly comfortable and time-efficient dental care.

More information can be found by visiting www.wh.com/en_uk, calling 01727 874990 or emailing office.uk@wh.com.

BDJ Team CPD

CPD questions: March 2019

CORE CPD: ONE HOUR

The emergency administration of oxygen

1. Why is oxygen given in an emergency?
A) To treat a rise in carbon dioxide
B) For the treatment of hypoxaemia
C) To treat breathlessness
D) To treat a blockage in the larynx.

2. What position should a patient be in for the administration of oxygen?
A) On their side
B) Horizontal
C) Their legs should be elevated
D) As upright as possible.

3. Along with blood pressure, heart rate, temperature and respiration rate, oxygen saturation is regarded as a vital sign – which vital sign is it?
A) Third
B) First
C) Fifth
D) Sixth.

4. When you clean the oxygen tank, what should you use?
A) Soap and water
B) Washing up liquid
C) A petroleum based product
D) An anti-microbrial spray.

BDJ Team is offering all readers 10 hours of free CPD a year on the BDA CPD Hub! Simply visit https://cpd.bda.org/login/index.php to take part!

How to take part in *BDJ Team* CPD

BDJ Team CPD is available through the BDA CPD Hub. This site is user-friendly and easy to navigate. There are still 10 hours of free *BDJ Team* CPD on the CPD Hub from 2018, in addition to this issue's CPD hours.

Just visit https://cpd.bda.org/login/index.php.

To send feedback, email **bdjteam@nature.com.**